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Predicting Hopelessness and Psychological Distress: The Role of Perfectionism and Coping

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This study investigated an integrative model involving the relationship between perfectionism (P. L. Hewitt & G. L. Flett, 1991) and coping (C. S. Carver, M. F. Scheier, & J. K. Weintraub, 1989) to predict changes in hopelessness and general psychological distress among college students. Results indicated that changes in psychological well-being (4–5 weeks later) were predicted by socially prescribed perfectionism, and, as theorized, avoidance coping moderated the link between perfectionism and psychological well-being beyond initial levels of distress. Support was also found for the adaptive effects of cognitive reconstruction coping and other-oriented perfectionism, whereas, under certain conditions, self-oriented perfectionism was shown to be maladaptive. These findings offer support for the proposed model. Implications for intervention and suggestions for future research are discussed.

It is well documented that perfectionistic tendencies are associated with psychological distress (see Shafran & Mansell, 2001, for a review). Pacht (1984) posited that striving for unattainable perfection produces psychological problems, and although the perfectionist can avoid disappointment by meeting their high standards, they rarely experience satisfaction with the results. However, there is considerable debate concerning which components of perfectionism increase the risk of psychopathology. Nevertheless, it is agreed that perfectionism is best understood as a multidimensional construct, and this is reflected in the development of two widely used scales, both entitled the Multidimensional Perfectionism Scale (MPS; Frost, Marten, Lahart, & Rosenblate, 1990; Hewitt & Flett, 1991, 1996).

Notwithstanding the fact that the authors of the two scales operationalize perfectionism using different items, Hewitt, Frost, and colleagues agree that it is important to distinguish between the social and personal aspects (Frost et al., 1990; Hewitt, Flett, & Endler, 1995). Frost's personal dimensions include concern with mistakes, high standards, doubts about actions, and organization, whereas his social facets include parental standards and criticism (Frost & Marten, 1990; Frost et al., 1990). Hewitt and Flett (1991, 1996), however, have identified three dimensions: socially prescribed perfectionism, self-oriented perfectionism, and other-oriented perfectionism. Socially prescribed perfectionism taps beliefs about the excessive expectations individuals perceive significant others have of them, and self-oriented perfectionism focuses on the standards people set for themselves. Other-oriented perfectionism is the extent to which individuals possess high expectations and standards for other people's behavior.

To focus on Hewitt and Flett's (1991, 1996) dimensions, as their scale was used in the present research, recent studies have yielded disparate findings. For example, some studies with clinical patients have found evidence for a positive association between self-oriented perfectionism and suicidal threat (Hewitt, Flett, & Weber, 1994) and depression (Hewitt & Flett, 1991; Hewitt et al., 1995), whereas others have not (Hewitt, Flett, & Turnbull, 1992). Furthermore, Hunter and O'Connor (in press) found, in a sample including general hospital parasuicide patients, that self-oriented perfectionism was positively correlated with positive future thinking (which buffers against suicide risk). In addition, a range of studies have shown self-oriented perfectionism to be positively associated with personal control, resourcefulness, self-esteem, and adaptive learning strategies (Flett, Hewitt, Blankstein, & Dynin, 1994; Flett, Hewitt, Blankstein, & Mosher, 1991; Flett, Hewitt, Blankstein, & O'Brien, 1991).

The evidence is also equivocal in relation to other-oriented perfectionism. Work with clinical patient groups (Hewitt, Flett, Callander, & Cowan, 1998; Hunter & O'Connor, in press) and student populations (Chang & Sanna, 2001; Flett, Hewitt, Blankstein, & Mosher, 1995; R. C. O'Connor, O'Connor, Harper, Smallwood, & Miles, 2002) has revealed that other-oriented perfectionism serves as a suicide protection factor associated with lower depression and hopelessness. But other findings suggest that it is associated with increased paranoia and phobic symptoms (e.g., Hewitt & Flett, 1991). The positive relationship between other-oriented perfectionism and psychological well-being fits with self-focused attention models of depression that argue that focus directed away from self is often less destructive than increased focus on self (see Musson & Alloy, 1988). The relationship between psychological distress and socially prescribed perfectionism, unlike the other two dimensions, seems to be more straightforward: higher social perfectionism (i.e., socially prescribed perfectionism)

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is associated with greater distress (Chang & Rand, 2000; Hewitt & Flett, 1991; Hewitt, Flett, & Ediger, 1996; Hunter & O'Connor, in press; R. C. O'Connor et al., 2002; Wyatt & Gilbert, 1998).

Although there have been a large number of studies conducted to clarify the relationships between the different dimensions of perfectionism and distress, (a) many studies are cross-sectional, (b) they often do not investigate changes in distress, and (c) "integrative models involving perfectionism and other theoretically important factors have not been seriously tested" (Chang & Sanna, 2001, p. 494). The latter is somewhat surprising, as such relationships are consistent with well-established self-regulatory theories (e.g., Baumeister, 1990; Rehm, 1977). Hence, the focus of this study was on one such factor, coping style, and how it interacts with perfectionism to predict psychological adjustment longitudinally.

Perfectionism and Moderating Factors

First, a growing body of literature suggests that some of the vulnerability (or otherwise) associated with perfectionism may only be activated by the presence of moderating factors, such as stress (Hewitt & Flett, 1993; R. C. O'Connor et al., 2002; Rice & Lapsley, 2001). Such hypotheses derive from the diathesis-stress literature that argues that psychological vulnerabilities, when activated by stress, result in depression, hopelessness, and suicide ideation (e.g., Hewitt et al., 1995; Joiner & Rudd, 1995; D. B. O'Connor, O'Connor, White, & Bundred, 2000; R. C. O'Connor & Sheehy, 2000; Schotte & Clum, 1987; Sheehy & O'Connor, 2002). *Coping styles*, the behavioral and cognitive responses that individuals use when they encounter stressors, have also been shown to have well-established moderating effects. For example, there is a myriad of studies supporting the relationship between so-called maladaptive coping responses and psychological distress (Chang, 1998; Kopp, Skrabski, & Szedmak, 2000). Nevertheless, there is a dearth of research in the coping and perfectionism literature. To our knowledge, only a few studies have investigated how these variables interact to predict psychological distress (Dunkley & Blankstein, 2000; Dunkley, Blankstein, Halsall, Williams, & Winkworth, 2000; Hewitt et al., 1995; Rice & Lapsley, 2001).

The evidence suggests that certain dimensions of perfectionism are associated with maladaptive coping, whereas other dimensions are related to adaptive components. For example, Hewitt et al. (1995) assessed 121 psychiatric in- and outpatients from a large psychiatric hospital on measures of perfectionism, coping, and depression. Their results were interesting in that they suggested that self-oriented perfectionism and *emotion-oriented coping* (the tendency to focus on negative affective reactions) were positively associated with depression and that emotion-oriented coping interacted with self-oriented perfectionism to predict depression. Rice and Lapsley (2001), using a similar methodology but assessing college students, found that perfectionism and coping predicted emotional adjustment but yielded no evidence for moderation. Dunkley et al. (2000), also using university students and assessing the relationship between distress symptoms and Frost et al.'s (1990) measures, did not find an interaction between coping and perfectionism. Dunkley and Blankstein (2000) were not interested in the moderating effects of coping; rather, they investigated two possible mechanisms that could mediate the relation between self-critical perfectionism and distress. However, the conclusions from these studies are limited, as all of the measures were assessed concurrently within a cross-sectional study design.

Although the interaction between coping style and perfectionism is of interest empirically, the nature of this relationship also has considerable conceptual merit. Consider Baumeister's (1990) theory of suicide as escape from self in which he argues that the first step in the causal chain to suicide (i.e., psychological distress) begins with the interpretation of a severe experience as falling short of expectations and standards. Needless to say, such expectations and standards are determined, in part, by perfectionistic tendencies. However, not everyone who fails to meet these standards is at risk of suicide or psychological distress. This may be because there are individual differences with respect to the coping strategies that are used to diffuse stressful situations. Hence, we hypothesize that those individuals with high levels of, for example, social perfectionism but who use an adaptive coping style will experience lower levels of hopelessness. As the literature is equivocal, we would not formulate specific directional predictions concerning self-oriented and other-oriented perfectionism.

The central aim of this study was to test an integrative model focusing on the relationship between coping and perfectionism to predict changes in two measures of well-being: psychological distress and hopelessness. These variables were chosen given their theoretical and clinical importance. Hopelessness has an established relationship with suicidal behavior (R. C. O'Connor & Leenaars, in press; R. C. O'Connor, Sheehy, & O'Connor, 1999, 2000), its relationship with moderating factors is underresearched, and it is associated with social perfectionism among clinical patients (Hewitt et al., 1998; Hunter & O'Connor, in press). Psychological distress, as assessed via the General Health Questionnaire (GHQ; Goldberg & Williams, 1988), is interesting clinically, as it is often used as a screening tool to detect psychiatric morbidity (Bowling, 1997), and, to date, its relationship with perfectionism is largely unknown. To our knowledge, only two studies (Hamilton & Schweitzer, 2000; Hanstock & O'Mahony, 2002), both cross-sectional, have investigated the relationship between dimensions of perfectionism and GHQ psychological distress. The former study (Hamilton & Schweitzer, 2000) was interested in the relationship between suicide ideation and perfectionism but did not report the associations between dimensions of perfectionism and GHQ psychological distress. The latter study (Hanstock & O'Mahony, 2002), which included only female participants, found a negative correlation between psychological distress and self-oriented perfectionism.

To summarize, in this study we recruited a sample of university students and assessed them at two points in time intended to represent periods of relatively high and low stress. At Time 1 (T1), we measured perfectionism, coping style, psychological distress, and hopelessness, and at follow-up, 4–5 weeks later (Time 2 [T2]), we recorded hopelessness, psychological distress, and perceived stress. We aimed to address the limitations in previous research and extend our knowledge by investigating the following three key questions: Do the dimensions of perfectionism relate differentially to adaptive and maladaptive coping styles and psychological distress and hopelessness? Are the dimensions of perfectionism predictive of hopelessness and psychological distress prospectively after controlling for initial levels of distress? Are the relationships between perfectionism, hopelessness, and psychological distress moderated by coping styles?

Method

Participants

Two hundred thirteen undergraduate students (44 men and 169 women) were recruited from two British universities. Prior to beginning the study, all students were informed that participation was voluntary, confidential, and that even if they agreed, they could withdraw at any stage without explanation. Of this initial sample, 175 completed measures at both time points, at T1 and 4–5 weeks later at T2. Those who did not complete the T2 measures did not differ significantly from those who did in terms of age, t (211) = 0.176, *ns*; marital status, $\chi^2(4, N = 213) = 1.12$, *ns*; and gender, $\chi^2(1, N = 213) = 0.141$, *ns*. As a result, the subsequent analyses are based on the responses from the 175 participants. The mean age of the participants was 22.3 years ($SD = 6.6$), and the ages ranged from 18 to 67 years. The men and women did not differ significantly in age, $t(173) = 1.01$, *ns*, and the majority of the participants were not married (90%). We did not collect details of the racial–ethnic composition of our sample; however, the students at both universities are predominantly White, representing 90% and 95%, respectively, of the student populations.

Measures

Hopelessness. Hopelessness was measured using the 20-item Beck Hopelessness Scale (BHS; Beck, Weissman, Lester, & Trexler, 1974). Respondents are asked to indicate either agreement or disagreement with statements that assess pessimism for the future (e.g., "I look forward to the future with hope and enthusiasm"). Higher scores represent elevated hopelessness. This is a reliable and valid measure that has been shown to predict eventual suicide (Beck, Steer, Kovacs, & Garrison, 1985; Beck et al., 1974; Holden & Fekken, 1988). The scale range is 0–20. In the present study, internal consistency was very good (Kuder–Richardson 20 = .83).

Psychological distress. The GHQ-30 (Goldberg & Williams, 1988) was used to assess psychological distress. It consists of a checklist of 30 statements asking respondents to compare their recent experience with their usual state on a 4-point scale of severity ranging from *better than usual* to *much less than usual*. Items include "been able to concentrate on whatever you're doing" and "been nervous and strung-up all the time." Higher scores indicate greater psychological distress and poorer general health. The scale has been shown to be reliable and valid (Goldberg & Williams, 1988) and ranges from 0 to 90. Internal consistency in this sample was very good (Cronbach's $\alpha = .93$).

Perfectionism. The MPS (Hewitt & Flett, 1991, 1996) is a 45-item measure of perfectionism, with 15 questions assessing each of three dimensions of perfectionism: (a) *Self-Oriented Perfectionism* (MPS-Self), defined as a strong motivation to be perfect, all-or-nothing thinking, and self-reported high achievement expectations (e.g., "One of my goals is to be perfect in everything I do"); (b) *Socially Prescribed Perfectionism* (MPS-Social), which assesses the degree of belief that others hold unrealistically high expectations of one's behavior and that they would only be satisfied with these standards (e.g., "The people around me expect me to succeed at everything I do"); and (c) *Other-Oriented Perfectionism* (MPS-Other), which assesses the degree to which an individual sets unrealistic standards for others (e.g., "If I ask someone to do something, I expect it to be done flawlessly"). Respondents are asked to rate each statement on a 7-point Likert-type scale ranging from 1 (*disagree*) to 7 (*agree*). Higher scores on each scale represent greater levels of perfectionism. Each subscale can range from 15 to 105. The MPS has been shown to exhibit acceptable test–retest reliability and construct validity (Hewitt & Flett, 1991). The three dimensions of perfectionism yielded good internal consistency in the present investigation (Cronbach's αs = .91, .85, and .71, for MPS-Self, MPS-Social, and MPS-Other, respectively). The MPS has been shown to have very good temporal stability for as long as 3 months later (Hewitt & Flett, 1991).

Coping styles. We used a shortened version of The COPE Inventory (Carver et al., 1989) to assess coping styles. The original inventory is a 53-item measure that consists of 14 conceptually distinct subscales for Active Coping ($\alpha = .67$),[1] Planning ($\alpha = .77$), Suppressing Competing Activities ($\alpha = .67$), Restraint Coping ($\alpha = .68$), Seeking Social Support for Instrumental Reasons ($\alpha = .71$), Seeking Social Support for Emotional Reasons ($\alpha = .76$), Positive Reinterpretation and Growth ($\alpha = .72$), Acceptance ($\alpha = .68$), Turning to Religion ($\alpha = .92$), Focusing on the Venting of Emotion ($\alpha = .88$), Denial ($\alpha = .76$), Behavioral Disengagement ($\alpha = .77$), Mental Disengagement ($\alpha = .51$), and Alcohol–Drug Disengagement. Each of the subscales, except for Alcohol–Drug Disengagement, is comprised of four items. Alcohol–Drug Disengagement is measured using one item from *The Modified COPE*. As the inventory is quite long, we used an abridged version of the scale. We used Carver et al.'s (1989) original factor analysis to select the 2 items from each subscale with the highest loadings on the factors plus the 1 item for Alcohol–Drug Disengagement. This resulted in a 27-item abridged version. We then piloted the measure and obtained similar internal consistencies to previous studies (e.g., Carver et al., 1989). The internal consistencies (Cronbach's alpha) for each of the subscales in the present study, except for Mental Disengagement, were acceptable (appearing in parenthesis after each subscale). The scale range for each of the subscales, except for Alcohol–Drug Disengagement, is between 0 and 6. The maximum range for alcohol–drug disengagement is 3. Consistent with other studies (Carver et al., 1989; Ingledew, Hardy, Cooper, & Jemal, 1996), the internal consistency of the Mental Disengagement subscale was low at .51. However, similar to Ingledew et al. (1996), we kept it in the analysis. Test–retest reliability of the subscales has been shown to be relatively stable over 6 and 8 weeks (see Carver et al., 1989, Study 1).

Stress. The Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983) is a 14-item global measure of self-appraised stress (e.g., "In the last month, how often have you been upset because of something that happened to you unexpectedly?"). Respondents are asked to rate the extent of agreement with these items across a 5-point Likert-type scale ranging from 0 (*never*) to 4 (*very often*). Higher scores reflect elevated levels of stress. Test–retest reliability and construct validity have been shown to be acceptable (Cohen et al., 1983; Cohen & Williamson, 1988). The scale range is from 0 to 56. Cronbach's alpha for the present sample was .81.

Procedure

All participants were given a brief introduction of what the study would require and invited to participate. At T1, all 213 participants completed measures of perfectionism, coping strategies, hopelessness, and psychological distress. At T2, 4–5 weeks later, 175 of the participants completed measures of hopelessness, psychological distress, and perceived stress. To enhance the likelihood that self-reported psychological well-being would change over the study period, we assessed the participants at a relatively high stress period (T1, when many of the students had degree-bearing coursework submission deadlines) and at a lower stress period (T2, when there were no coursework deadlines). Consistent with universities in other countries, in the United Kingdom, the timing of coursework submission dates differs from class to class. To ensure that we sampled from a relatively high stress period at T1 relative to T2, in both universities, we ensured that participants were only recruited from classes in which they had degree-bearing coursework at that time and not at T2. All study measures were administered to participants from four intact classes (i.e., two classes from either university). All those who were approached agreed to participate. To control for transfer effects, the order of presentation of the measures was counterbalanced at both time points. To ensure anonymity, but to allow for the follow-up, participants were asked to place either a pseudonym or their registration number on the study measures. Ethical

[1] Cronbach's alpha relates to the internal consistencies associated with each of the modified scales in the present study.

Table 1
COPE Subscale Factor Loadings

Variable	Factor 1	Factor 2	Factor 3	Factor 4
Active coping	**.850**	−.066	.074	.031
Planning	**.798**	−.072	−.048	−.044
Suppressing competing activities	**.791**	−.017	−.021	−.092
Restraint coping	**.359**	.330	−.070	.259
Denial	−.070	**.797**	−.175	−.121
Behavioral disengagement	−.060	**.749**	.085	−.044
Mental disengagement	−.122	**.610**	.029	.188
Alcohol–drug disengagement	.066	**.685**	.030	−.078
Seeking instrumental social support	.055	−.024	**−.770**	.155
Seeking emotional social support	−.045	−.112	**−.885**	.113
Focus and venting of emotions	−.040	.116	**−.754**	−.222
Positive reinterpretation and growth	.118	−.133	−.132	**.676**
Acceptance	−.111	.016	.058	**.765**

Note. Boldfaced values represent the items that predominate each factor.

approval had been obtained from the university's Psychology department's ethics committee.

Results

As anticipated, the mean ratings for psychological distress (GHQ-T1 vs. GHQ-T2: $M = 36.69$, $SD = 13.03$ vs. $M = 32.66$, $SD = 12.40$) and hopelessness (BHS-T1 vs. BHS-T2: $M = 4.04$, $SD = 3.39$ vs. $M = 3.70$, $SD = 3.01$) were lower at T2 relative to T1. This difference was significant for psychological distress but not for hopelessness, $t(174) = 4.38$, $p < .01$; and, $t(174) = 1.30$, $p = .09$, respectively. Before proceeding with the main analyses, we conducted a factor analysis of the coping style responses to yield clusters of items that were correlated, thereby deriving factors that were largely adaptive or maladaptive.

Factor Analysis of COPE

Following Ingledew et al. (1996), we examined the factor structure of the COPE by analysis of the scale scores rather than by the individual items (i.e., we factor analyzed the item pairs and the alcohol–drug disengagement item). Extraction was by principal-components factoring (as we aimed to maximize the total variance explained among the variables). Retention of factors was determined using the eigenvalue-one procedure and Cattell's scree test. We used oblique rotation (oblimin) because coping research suggests that the scales are correlated (Carver et al., 1989; Ingledew et al., 1996; Lyne & Roger, 2000). Given that previous studies questioned the COPE-Turning-to-Religion subscale (Ingledew et al., 1996) and the evidence that religious coping is not associated with psychological distress in an undergraduate sample (D. B. O'Connor, Cobb, & O'Connor, 2003), we conducted two factor analyses: one analysis included the COPE-Turning-to-Religion subscale, and the other excluded it. Both factor analyses yielded the same findings: the extraction of four factors. In the first factor analysis, COPE-Turning-to-Religion did not load on any of the factors. As a result, all subsequent analyses reported the latter factor analysis that accounted for 60.1% of the scale's variance.

Consistent with Ingledew et al. (1996) and Fortune, Richards, Griffiths, and Main (2002), the first three factors were labeled (a) *Problem-Focused Coping* ($\alpha = .70$), (b) *Avoidance Coping* ($\alpha = .70$), and (c) *Lack of Emotion-Focused Coping* ($\alpha = .72$). We termed the fourth factor *Cognitive Reconstruction* ($\alpha = .65$; see Table 1 for subscale-factor loadings). The Problem-Focused Coping factor was dominated by active coping, planning, and suppression of competing activities plus restraint coping. Denial, behavioral, and mental disengagement, and turning to alcohol seemed to be equally important components in the Avoidance Coping factor. The third factor comprised seeking instrumental and emotional social support and focus and venting of emotions. Consistent with Ingledew et al. (1996), this factor was labeled Lack of Emotion-Focused Coping because all the loadings were negative. Finally, the fourth factor was labeled Cognitive Reconstruction Coping because it consisted of two scales: Positive Reinterpretation and Growth and Acceptance.

Correlations Among Perfectionism, Stress, Coping, and Psychological Well-Being at T2

Zero-order correlations, means, and standard deviations for the predictors and outcome variables are presented in Table 2 (below the diagonal). BHS-T2 was positively correlated with GHQ-T2, socially prescribed perfectionism, avoidance coping, and stress. There was a weak negative correlation between BHS-T2 and cognitive reconstruction coping.[2] A similar pattern of correlations between GHQ-T2 and the other variables was evident; however, the negative correlation with cognitive reconstruction was stronger than that with BHS-T2. The perfectionism subscales were all intercorrelated, although the relationship between socially prescribed and other-oriented perfection was weak. Self-oriented perfectionism was the only perfectionism dimension to be significantly related to any of the four coping factors or perceived stress: higher self-oriented perfectionism was associated with significantly lower avoidance coping. Problem-focused coping correlated significantly with lack of emotion-focused coping and cognitive reconstruction. None of the other coping factors were intercorrelated. Finally, as perceived stress increased, avoidance coping increased, and cognitive reconstruction decreased significantly.

[2] To reduce the likelihood of making a Type I error, the level of significance was set at $p < .01$.

Table 2
Zero-Order and Partial Correlations, Means, and Standard Deviations of the Outcome Variables and Predictors

Variable	1	2	3	4	5	6	7	8	9	10
1. BHS-T2	—	.443***	.284***	.073	−.063	−.064	.227**	.076	.008	.226**
2. GHQ-T2	.570***	—	.171*	.095	−.015	−.101	.293***	.030	−.078	.495***
3. Social	.301***	.218**	—	.256**	.131	−.054	.082	.013	−.063	.078
4. Self	.000	.084	.247***	—	.377***	.094	−.215**	.001	−.140	.038
5. Other	−.053	−.024	.155*	.362***	—	.047	−.001	−.120	−.093	−.097
6. Problem-Focused Coping	−.115	−.130	−.066	.105	.047	—	−.111	−.239**	.187*	−.074
7. Avoidance Coping	.403***	.419***	.123	−.231**	.001	−.145	—	−.110	.173*	.175*
8. Lack of Emotion-Focused Coping	.129	.010	.014	−.046	−.106	−.246**	−.052	—	−.121	.013
9. Cognitive Reconstruction Coping	−.155*	−.262***	−.106	−.134	−.081	.203**	.030	−.104	—	−.097
10. Stress	.421***	.689***	.134	.018	−.086	−.106	.350***	−.004	−.278***	—
M	3.70	32.66	54.14	65.75	57.87	0.00[a]	0.00	0.00	0.00	24.94
SD	3.01	12.40	10.55	16.00	9.36	1.00	1.00	1.00	1.00	8.39

Note. Zero-order correlations are presented below the diagonal; partial correlations are presented above the diagonal (controlling for Hopelessness Time 1 and Psychological Distress Time 1). BHS-T2 = Hopelessness Time 2; GHQ-T2 = Psychological Distress Time 2; Social = socially prescribed perfectionism; Self = self-oriented perfectionism; Other = other-oriented perfectionism.
[a] Means and standard deviations for factor scores are standardized.
* $p < .05$, two-tailed. ** $p < .01$. *** $p < .001$.

The partial correlations between the variables, after controlling for BHS-T1 and GHQ-T1, revealed interesting relationships between cognitive reconstruction coping and other variables (see Table 2 above the diagonal). In particular, the relationships between cognitive reconstruction and the T2 outcome variables (BHS-T2 and GHQ-T2) were rendered no longer significant. It is also noteworthy that the correlation between perceived stress and cognitive reconstruction was also explained via psychological well-being at T1.

Perfectionism and Coping as Predictors of Hopelessness (BHS-T2)

We conducted a series of hierarchical regression analyses to determine whether the dimensions of perfectionism and coping were predictive of hopelessness (T2) after controlling for initial levels of distress and to investigate whether coping moderated the relationship between perfectionism and hopelessness.[3] To remove variance associated with initial levels of distress and perceived stress experienced between T1 and T2, we entered GHQ-T1 and BHS-T1 in the first step of each regression, with stress entered at the second step. We entered one of the three dimensions of perfectionism (MPS-Self, MPS-Social, or MPS-Other) at Step 3, followed by one of the four coping styles (problem-focused, lack of emotion-focused, avoidance coping, or cognitive reconstruction) at Step 4. Finally, we entered the relevant multiplicative term (e.g., Socially Prescribed Perfectionism × Avoidance Coping) at Step 5 to test for the interaction effects (see Pedhazur, 1997).[4]

In all regressions, not surprisingly, BHS-T1 and GHQ-T1, entered as a block, were significant predictors of BHS-T2, with BHS-T1 being the stronger predictor. Perceived stress was also a consistent significant predictor of BHS-T2. The regression analyses involving problem-focused coping and lack of emotion-focused coping and the dimensions of perfectionism yielded no significant main effects of coping or interactions. However, the analyses involving avoidance and cognitive reconstruction coping yielded interesting effects (see Table 3).[5]

After the variance associated with BHS-T1 and GHQ-T1 and stress was removed, socially prescribed perfectionism and the cross-product interaction term (Avoidance × Socially Prescribed Perfectionism) were significant predictors of BHS-T2. To investigate the Avoidance Coping × Socially Prescribed Perfectionism interaction, consistent with Aiken and West (1991), we plotted the regression lines of best fit at high (1 standard deviation above the mean) and low (1 standard deviation below the mean) levels of socially prescribed perfectionism and avoidance coping. We conducted further tests separately on the slopes of the high- and low-avoidance coping to determine whether they were significantly different from zero. Applications of the procedures outlined by Aiken and West (1991) revealed that the high- ($\beta = .363$),

[3] Because of problems concerning statistical power, the Perfectionism × Coping dimensions were examined using separate regression analyses (see Chaplin, 1991).

[4] To reduce the likelihood of making a Type I error, the level of significance was set at $p < .01$ for the regression analyses.

[5] The plots illustrating the interactions are available from Rory C. O'Connor on request.

Table 3
Hierarchical Multiple Regression Analyses Testing the Moderating Effects of Avoidance and Cognitive Reconstruction Coping Styles on the Relationship Between Perfectionism and Hopelessness

	Predictor variable	*R*	Adj. R^2	ΔR^2	*F*(1, 173)
	Regression 1				
Step 1:	GHQ-T1 BHS-T1	.574	.322		42.32***
Step 2:	Stress	.604	.353	.031	9.37**
Step 3:	Socially prescribed perfectionism	.643	.399	.046	14.11***
Step 4:	Avoidance coping	.657	.415	.016	5.53*
Step 5:	Avoidance Coping × Socially Prescribed Perfectionism	.678	.440	.025	8.51**
	Regression 2				
Step 1:	GHQ-T1 BHS-T1	.574	.322		42.32***
Step 2:	Stress	.604	.353	.031	9.37*
Step 3:	Self-oriented perfectionism	.607	.353	.000	0.94
Step 4:	Avoidance coping	.630	.379	.026	7.98**
Step 5:	Avoidance Coping × Self-Oriented Perfectionism	.630	.376	−.003	0.23
	Regression 3				
Step 1:	GHQ-T1 BHS-T1	.567	.313		39.33***
Step 2:	Stress	.597	.344	.031	8.86**
Step 3:	Other-oriented perfectionism	.598	.341	−.003	0.256
Step 4:	Avoidance coping	.618	.363	.022	6.51*
Step 5:	Avoidance Coping × Other-Oriented Perfectionism	.646	.395	.032	9.73**
	Regression 4				
Step 1:	GHQ-T1 BHS-T1	.574	.322		42.32***
Step 2:	Stress	.604	.353	.031	9.37**
Step 3:	Socially prescribed perfectionism	.643	.399	.046	14.11***
Step 4:	Cognitive reconstruction coping	.644	.397	−.002	0.37
Step 5:	Cognitive Reconstruction Coping × Socially Prescribed Perfectionism	.644	.394	−.003	0.07
	Regression 5				
Step 1:	GHQ-T1 BHS-T1	.574	.322		42.32***
Step 2:	Stress	.604	.353	.031	9.37***
Step 3:	Self-oriented perfectionism	.607	.353	.000	0.94
Step 4:	Cognitive reconstruction coping	.608	.350	−.003	0.27
Step 5:	Cognitive Reconstruction Coping × Self-Oriented Perfectionism	.631	.377	.027	8.18**
	Regression 6				
Step 1:	GHQ-T1 BHS-T1	.567	.321		39.33***
Step 2:	Stress	.597	.356	.035	8.86**
Step 3:	Other-oriented perfectionism	.598	.357	.001	0.256
Step 4:	Cognitive reconstruction coping	.598	.358	.001	0.139
Step 5:	Cognitive Reconstruction Coping × Other-Oriented Perfectionism	.611	.374	.016	4.21*

Note. Each regression relates to the prediction of Hopelessness at Time 2. GHQ-T1 = Psychological Distress at Time 1; BHS-T1 = Hopelessness at Time 1.
* $p < .05$. ** $p < .01$. *** $p < .001$.

$t(171) = 4.71$, $p < .01$, but not the low- ($\beta = .051$), $t(171) = .631$, *ns*, avoidance coping lines differed significantly from zero. In other words, those participants who reported high avoidance coping and high social perfectionism at T1 were significantly more hopeless at T2 than those who did not.

Although other-oriented perfectionism was not an independent predictor of BHS-T2, the Avoidance Coping × Other-Oriented Perfectionism interaction was significant. To probe the interaction further, we calculated regression slopes at high and low levels of avoidance coping to determine whether they differed significantly from zero. Adopting the significance levels as outlined earlier (i.e., $p < .01$), the slope of the high-avoidance regression was not significant ($\beta = -.184$), $t(171) = -2.39$, $p = .02$; however, there was a trend that high levels of avoidance coping interacts with low levels of other-oriented perfectionism to produce higher levels of BHS-T2. The slope for low-avoidance coping did not differ significantly from zero ($\beta = .166$), $t(171) = 1.88$, *ns*. In addition, self-oriented perfectionism did not predict changes in BHS-T2.

A different pattern of results was found for the perfectionism and cognitive reconstruction regression analyses. As is evident in Table 3, socially prescribed perfectionism was an independent predictor of change in hopelessness, but its relationship with hopelessness was not moderated by cognitive reconstruction. With respect to self-oriented perfectionism, it interacted with cognitive reconstruction to produce changes in hopelessness.

Once again, we followed up the interaction with two simple slope calculations, as recommended by Aiken and West (1991). These analyses suggested that high levels of self-oriented perfectionism predicted higher levels of hopelessness only when cognitive reconstruction coping was low ($\beta = .205$), $t(171) = 2.60$, $p < .01$, but not when it was high ($\beta = -.126$), $t(171) = -.1.39$, *ns*. However, other-oriented perfectionism did not predict changes in hopelessness.

Perfectionism and Coping as Predictors of Psychological Distress (GHQ-T2)

The results for psychological distress were somewhat similar to those obtained for hopelessness. Once again, neither problem-focused coping and lack of emotion-focused coping nor their cross-product interactions with perfectionism predicted changes in psychological distress. In addition, cognitive reconstruction did not predict psychological distress beyond initial levels of distress. However, as is displayed in Table 4, the relationships between avoidance coping and perfectionism had considerable predictive power. Not surprisingly, in all of these regressions, the initial levels of psychological distress were the strongest predictors of subsequent distress. Consonant with the predictors of BHS-T2, socially prescribed and other-oriented perfectionism interacted with avoidance coping to predict changes in GHQ-T2. The post hoc analyses revealed that only high levels of avoidance coping interacted with high levels of socially prescribed perfectionism to predict significantly higher psychological distress relative to low levels ($\beta = .220$), $t(171) = 3.20$, $p < .01$.

The interaction between avoidance coping and other-oriented perfectionism was slightly different from that reported for BHS-T2. Although the intercept of the low-avoidance slope, irrespective of the level of other-oriented perfectionism, was below that of the high-avoidance slope, the slope analysis suggests that low levels of avoidance at low levels of other-oriented perfectionism predicts significantly lower levels of GHQ-T2 ($\beta = .232$), $t(171) = 3.05$, $p < .01$, whereas the slope for high-avoidance coping did not differ significantly from zero ($\beta = -.125$), $t(171) = -1.91$, *ns*.

Discussion

This study yielded evidence in support of its three aims and extended our understanding of the relationship between perfectionism, coping, and psychological health. Moreover, this research represented a rigorous test of the utility of integrative cognitive vulnerability models to predict changes in psychological well-being. In relation to the first aim, there was considerable evidence that psychological well-being related differentially to adaptive and maladaptive coping: avoidance and cognitive reconstruction coping correlated with hopelessness and psychological distress, as assessed at T2, but in opposite directions. Avoidance coping can be characterized as maladaptive, as it involves denial, behavioral and mental disengagement, and turning to alcohol in response to stress. Its positive relationship with hopelessness and psychological distress was not surprising given that this factor includes items such as "I refuse to believe that it (stressor) has happened," "I just give up trying to reach my goal," and "I drink alcohol or take drugs, in order to think about it (stressor) less." Moreover, the strength of the relationship between change in distress and avoidance coping should not be underestimated: The relationships held, irrespective of initial levels of distress.

We labeled the fourth coping factor Cognitive Reconstruction because it incorporated positive reinterpretation and growth as well as acceptance. Closer inspection of the constituent items suggests that it taps responses that include changing one's perspective and choosing to see something good in the stressor and accepting it. One of the items for the Positive Reinterpretation and Growth subscale was "I try to see it in a different light, to make it seem more positive," and one of the items for acceptance was "I accept that this has happened and that it can't be changed." Cognitive Reconstruction represents an adaptive coping style—higher scores on this factor were associated with reduced hopelessness ($p < .05$) and better psychological well-being. However, the partial correlations suggest that the relationship between changes in psychological health and cognitive reconstruction are explained via the initial levels of psychological well-being, as its relationship with GHQ-T2 and BHS-T2 was no longer significant after the BHS-T1 and GHQ-T1 variance was removed.

That the other measures of coping (i.e., problem-focused and lack of emotion-focused) did not correlate with the outcome measures or with the dimensions of perfectionism is worthy of note in the context of previous research. Hewitt et al. (1995) also reported few correlations. They found that for men, depression was only associated with emotion-oriented coping, and for women, depression was correlated with lower levels of task-oriented coping, avoidance, and social diversion. With respect to perfectionism, these authors found that self-oriented perfectionism only correlated with emotion-oriented coping for women, and that other-oriented perfectionism was only associated with task-oriented coping also for women. Unlike our findings, Hewitt et al.

Table 4
Hierarchical Multiple Regression Analyses Testing the Moderating Effects of Avoidance Coping on the Relationship Between Perfectionism and Psychological Distress

Predictor variable		R	Adj. R^2	ΔR^2	$F(1, 173)$
	Regression 1				
Step 1:	GHQ-T1 BHS-T1	.595	.346		46.85***
Step 2:	Stress	.723	.514	.168	59.78***
Step 3:	Socially prescribed perfectionism	.731	.523	.009	4.46*
Step 4:	Avoidance coping	.746	.543	.02	8.25**
Step 5:	Avoidance Coping × Socially Prescribed Perfectionism	.757	.558	.015	6.71**
	Regression 2				
Step 1:	GHQ-T1 BHS-T1	.595	.346		46.85***
Step 2:	Stress	.723	.514	.168	59.78***
Step 3:	Self-oriented perfectionism	.726	.517	.003	2.04
Step 4:	Avoidance coping	.748	.546	.029	11.80**
Step 5:	Avoidance Coping × Self-Oriented Perfectionism	.749	.545	−.001	0.84
Step 1:	GHQ-T1 BHS-T1	.597	.348		45.60***
Step 2:	Stress	.717	.505	.157	53.09***
Step 3:	Other-oriented perfectionism	.717	.502	−.003	0.243
Step 4:	Avoidance coping	.734	.524	.022	8.60**
Step 5:	Avoidance Coping × Other-Oriented Perfectionism	.758	.559	.035	13.78***

Note. Each regression relates to the prediction of Hopelessness at Time 2. GHQ-T1 = Psychological Distress at Time 1; BHS-T1 = Hopelessness at Time 1.
* $p < .05$. ** $p < .01$. *** $p < .001$.

(1995) found that socially prescribed perfectionism correlated with emotion-oriented (for men) and social diversion coping (for women). Given the large difference in numbers of men and women who took part in this study, comparison by gender would not be meaningful in the present research. Unfortunately, comparison with Rice and Lapsley's (2001) findings is not possible, as they did not report correlations between coping, perfectionism, and distress.

Dunkley and Blankstein (2000) used a larger sample ($N = 175$ vs. $N = 233$) than that used in the present study, with approximately equal numbers of men and women. Their correlations suggested that self-oriented perfectionism was positively associated with task-oriented perfectionism, and socially prescribed perfectionism was correlated with emotion-oriented, task-oriented, and distraction coping. The discrepancy between their findings and ours could be, in some part, because participants in their study (and in Hewitt et al., 1995) completed their measures at the same time. The differences may also be a result of different measuring tools: Hewitt et al. (1995) and Dunkley and Blankstein (2000) both used the Coping Inventory for Stressful Situations (CISS; Endler & Parker, 1990), whereas we used the COPE scale (Carver et al., 1989). Future research is required to determine the degree to which the COPE factors reported here map onto the CISS subscales. Nevertheless, taking the results as a whole, including the moderation findings reported here, they support the previous research that found differential relationships between the dimensions of perfectionism, maladaptive and adaptive coping, and psychological well-being.

Coping and Perfectionism as Predictors of Psychological Well-Being

With respect to the second and third aims, this study yielded evidence to support the postulations that the dimensions of perfectionism are predictive of hopelessness and psychological distress after controlling for initial levels of distress, and that these relationships are moderated via coping styles. Not only was socially prescribed perfectionism an independent predictor of hopelessness, but its predictive power was enhanced by high levels of avoidance coping. Specifically, the maladaptive effect of a relatively stable personality dimension—social perfectionism—was exacerbated by the presence of a maladaptive coping style. This finding supports Baumeister's (1990) escape theory that implicates perfectionism in the etiology of psychological distress. This result also extends Hewitt et al.'s (1995) finding that socially prescribed perfectionism was a predictor of concurrent depression; however, they did not find an interaction with coping. Furthermore, social perfectionism interacted significantly with avoidance coping to predict changes in general psychological distress, although social perfectionism was not an independent predictor. This absence of an independent (main) effect is probably a function of the homogeneity of the constructs being measured: the BHS is thought to assess hopelessness only—pessimism for the future—whereas the GHQ assesses general psychological distress, which includes components of anxiety, depression, suicidality, insomnia, and somatic symptoms.

The significant interaction between avoidance coping and other-oriented perfectionism to predict hopelessness adds to the growing body of evidence that, under certain circumstances, other-oriented perfectionism has adaptive effects (Chang & Sanna, 2001; Hewitt et al., 1998; Hunter & O'Connor, in press; R. C. O'Connor et al., 2002). Individuals who are low on other-oriented perfectionism, in other words, those who do not have high expectations for other people's behavior and who respond to stressful events with avoidant cognitions and behaviors such as using alcohol or drugs, for example, are likely to be more hopeless and, as a result, at enhanced risk of suicidal behavior. This finding demands the answer to another research question: Do individuals with lower levels of other-oriented perfectionism also report social networks that are of reduced quality and quantity? If so, this represents one possible mechanism that could explain the adaptive effects of other-oriented perfectionism. Although the post hoc analyses for the Other-Oriented Perfectionism × Avoidance Coping interaction to predict GHQ psychological distress only yielded an effect of other-oriented perfectionism at low levels of avoidance, the pattern of results was similar to that for hopelessness.

The final interaction of interest is the moderating relationship between cognitive reconstruction and self-oriented perfectionism to predict hopelessness. Consistent with previous research, self-oriented perfectionism did not have an independent relationship with hopelessness (e.g., Hunter & O'Connor, in press); rather, higher self-oriented perfectionism was only associated with changes in hopelessness when cognitive reconstruction coping was low. Specifically, in the absence of positive reinterpretation and acceptance, setting unrealistic standards for oneself increases pessimism for the future.

It was also noteworthy that the relationship between stress and change in psychological well-being could not be explained in terms of initial levels of distress. Nonetheless, it is not possible to dismiss the notion that these effects were the result of the concurrent completion of the measures, that is, contamination because of the measures of T2 psychological well-being and perceived stress being completed within the same testing session. Even within a prospective study design, this limitation is difficult to overcome because researchers can only determine stress levels retrospectively. Perhaps future research should incorporate a measure of stress that does not rely exclusively on self-report questionnaires.

Although we extended previous findings by assessing well-being at two time points within a prospective study design and we investigated the interaction between variables, it is important to mention three limitations. First, we relied entirely on self-report questionnaires. Future research could include a selection of objective and subjective tools to determine perfectionism, coping, and well-being. Second, the results may not be generalizable beyond a student sample, therefore further research with general population participants is required. Third, our study followed participants over a relatively short period of time. It would be interesting to determine the utility of coping and perfectionism to predict longer term changes in affect and well-being.

Implications

Despite the limitations noted above, our findings have considerable implications for predicting those college students at risk of psychological maladjustment and suicidal behavior. We have demonstrated clearly that socially prescribed perfectionism and avoidance coping are maladaptive. Counselors and other mental health professionals should be particularly vigilant and sensitive to young people who appear overly concerned about what significant others expect of them and who use avoidance-type coping in response to stressful events. Moreover, not only should efforts be redoubled to modify social perfectionism, they should also focus on enhancing the adaptive components of other-oriented perfectionism. As noted earlier, theoretical models of depression argue that it is often important to shift cognitive focus away from oneself and redirect it to others (Musson & Alloy, 1988). This is reinforced here, with the caveat that the focus on others seems particularly protective when the young person is also using avoidance coping.

Another approach to intervention concerns heightened awareness of when self-oriented perfectionism is a risk factor for psychological maladjustment. It seems that self-standard setting may be pernicious only when it is not kept in check. Our data suggest that when one is not using adaptive coping strategies, such as positive reinterpretation and acceptance, higher levels of personal standard-setting are associated with increased hopelessness. In addition, this research provides descriptions of types of coping which, unlike many other studies, were factor analyzed into clusters of adaptive and maladaptive coping, and therefore are particularly meaningful to student populations. As a result, counselors can focus their attention on coping styles that are pertinent to psychological adjustment. This fits with the notion that the identification of potential typologies of college students at suicidal risk can only aid treatment and its subsequent outcome (Jobes, Jacoby, Cimbolic, & Hustead, 1997).

To conclude, this study extended previous research in a number of key respects. First, we demonstrated that components of perfectionism and specific types of coping predict hopelessness and psychological distress prospectively and beyond that explained by initial levels of distress. Second, avoidance coping and self-oriented perfectionism seem to be pernicious, whereas cognitive reconstruction and other-oriented perfectionism, under certain conditions, are associated with psychological well-being. Finally, we yielded evidence that the relationship between perfectionism and distress was moderated by coping style. Future research is required to determine whether these relationships are predictive of well-being over longer periods of time.

References

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions.* Newbury Park, CA: Sage.

Baumeister, R. (1990). Suicide as escape from self. *Psychological Review, 97,* 90–113.

Beck, A. T., Steer, R. A., Kovacs, M., & Garrison, B. (1985). Hopelessness and eventual suicide: A 10-year prospective study of patients hospitalized with suicidal ideation. *American Journal of Psychiatry, 142,* 559–563.

Beck, A. T., Weissman, A., Lester, D., & Trexler, L. (1974). The measurement of pessimism: The Hopelessness Scale. *Journal of Consulting and Clinical Psychology, 42,* 861–865.

Bowling, A. (1997). *Measuring health: A review of quality of life measurement scales* (2nd ed.). Buckingham, England: Open University Press.

Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping

strategies: A theoretically based approach. *Journal of Personality and Social Psychology, 56,* 267–283.

Chang, E. C. (1998). Hope, problem-solving ability, and coping in a college student population: Some implications for theory and practice. *Journal of Clinical Psychology, 54,* 953–962.

Chang, E. C., & Rand, K. L. (2000). Perfectionism as a predictor of subsequent adjustment: Evidence for a specific diathesis-stress mechanism among college students. *Journal of Counseling Psychology, 47,* 129–137.

Chang, E. C., & Sanna, L. J. (2001). Negative attributional style as a moderator of the link between perfectionism and depressive symptoms: Preliminary evidence for an integrative model. *Journal of Counseling Psychology, 48,* 490–495.

Chaplin, W. F. (1991). The next generation of moderator research in personality psychology. *Journal of Personality, 59,* 143–178.

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24,* 386–396.

Cohen, S., & Williamson, G. K. (1988). Perceived stress in a probability sample of the United States. In S. Spacapan & S. Oskamp (Eds.), *The social psychology of health* (pp. 31–67). Newbury Park, CA: Sage.

Dunkley, D. M., & Blankstein, K. R. (2000). Self-critical perfectionism, coping, hassles, and current distress: A structural equation modeling approach. *Cognitive Therapy and Research, 24,* 713–730.

Dunkley, D. M., Blankstein, K. R., Halsall, J., Williams, M., & Winkworth, G. (2000). The relation between perfectionism and distress: Hassles, coping, and perceived social support as mediators and moderators. *Journal of Counseling Psychology, 47,* 437–453.

Endler, N. S., & Parker, J. D. A. (1990). *CISS: Coping Inventory for Stressful Situations manual.* Toronto: Multi-Health Systems Inc.

Flett, G. L., Hewitt, P. L., Blankstein, K. R., & Dynin, C. (1994). Dimensions of perfectionism and Type A behavior. *Personality and Individual Differences, 16,* 477–485.

Flett, G. L., Hewitt, P. L., Blankstein, K. R., & Mosher, S. W. (1991). Perfectionism, self-actualization, and personal adjustment. *Journal of Social Behavior and Personality, 6,* 147–160.

Flett, G. L., Hewitt, P. L., Blankstein, K. R., & Mosher, S. W. (1995). Perfectionism, life events, and depressive symptoms: A test of a diathesis-stress model. *Current Psychology, 14,* 112–137.

Flett, G. L., Hewitt, P. L., Blankstein, K. R., & O'Brien, S. (1991). Perfectionism and learned resourcefulness in depression and self-esteem. *Personality and Individual Differences, 12,* 61–68.

Fortune, D. G., Richards, H. L., Griffiths, C. E. M., & Main, C. J. (2002). Psychological stress, distress and disability in patients with psoriasis: Consensus and variation in the contribution of illness perceptions, coping and alexithymia. *British Journal of Clinical Psychology, 41,* 157–174.

Frost, R., & Marten, P. (1990). Perfectionism and evaluative threat. *Cognitive Therapy and Research, 14,* 559–572.

Frost, R., Marten, P., Lahart, C., & Rosenblate, R. (1990). The dimensions of perfectionism. *Cognitive Therapy and Research, 14,* 449–468.

Goldberg, D., & Williams, P. (1988). *A user's guide to the General Health Questionnaire.* Windsor, England: NFER-Nelson.

Hamilton, T. K., & Schweitzer, R. D. (2000). The cost of being perfect: Perfectionism and suicide ideation in university students. *Australian and New Zealand Journal of Psychiatry, 34,* 829–835.

Hanstock, T. L., & O'Mahony, J. F. (2002). Perfectionism, acne and appearance concerns. *Personality and Individual Differences, 32,* 1317–1325.

Hewitt, P. L., & Flett, G. L. (1991). Perfectionism in the self and social contexts: Conceptualization, assessment, and association with psychopathology. *Journal of Personality and Social Psychology, 60,* 456–470.

Hewitt, P. L., & Flett, G. L. (1993). Dimensions of perfectionism, daily stress, and depression: A test of the specific vulnerability hypothesis. *Journal of Abnormal Psychology, 102,* 58–65.

Hewitt, P. L., & Flett, G. L. (1996). *The Multidimensional Perfectionism Scale.* Toronto: Multi-Health Systems Inc.

Hewitt, P. L., Flett, G. L., Callander, L., & Cowan, T. (1998). Dimensions of perfectionism, hopelessness, and attempted suicide in a sample of alcoholics. *Suicide and Life-Threatening Behavior, 28,* 395–406.

Hewitt, P. L., Flett, G. L., & Ediger, E. (1996). Perfectionism and depression: Longitudinal assessment of a specific vulnerability hypothesis. *Journal of Abnormal Psychology, 105,* 276–280.

Hewitt, P. L., Flett, G. L., & Endler, N. S. (1995). Perfectionism, coping and depression symptomatology in a clinical sample. *Clinical Psychology and Psychotherapy, 2,* 47–58.

Hewitt, P. L., Flett, G. L., & Turnbull, W. (1992). Perfectionism and suicide potential. *British Journal of Clinical Psychology, 31,* 439–460.

Hewitt, P. L., Flett, G. L., & Weber, C. (1994). Dimensions of perfectionism and suicide potential. *Cognitive Therapy and Research, 18,* 439–460.

Holden, R. R., & Fekken, G. C. (1988). Test–retest reliability of the Hopelessness Scale and its items in a university population. *Journal of Clinical Psychology, 44,* 40–43.

Hunter, E., & O'Connor, R. C. (in press). Hopelessness and future thinking in parasuicide: The role of perfectionism. *British Journal of Clinical Psychology.*

Ingledew, D. K., Hardy, L., Cooper, C. L., & Jemal, H. (1996). Health behaviors reported as coping strategies: A factor analytical study. *British Journal of Health Psychology, 1,* 263–281.

Jobes, D. A., Jacoby, A. M., Cimbolic, P., & Hustead, L. T. (1997). Assessment and treatment of suicidal clients in a university counseling center. *Journal of Counseling Psychology, 44,* 368–377.

Joiner, T. E., & Rudd, M. D. (1995). Negative attributional style for interpersonal events and the occurrence of severe interpersonal disruptions as predictors of self-reported ideation. *Suicide and Life-Threatening Behavior, 25,* 297–304.

Kopp, M. S., Skrabski, A., & Szedmak, S. (2000). Psychosocial risk factors, inequality and self-rated morbidity in a changing society. *Social Science and Medicine, 51,* 1351–1361.

Lyne, K., & Roger, D. (2000). A psychometric re-assessment of the COPE questionnaire. *Personality and Individual Differences, 29,* 321–335.

Musson, R. F., & Alloy, L. B. (1988). Depression and self-focused attention. In L. B. Alloy (Ed.), *Cognitive processes in depression* (pp. 193–220). New York: Guilford Press.

O'Connor, D. B., Cobb, J., & O'Connor, R. C. (2003). Religiosity, stress and psychological distress: No evidence for an association among undergraduate students. *Personality and Individual Differences, 34,* 211–217.

O'Connor, D. B., O'Connor, R. C., White, B. L., & Bundred, P. E. (2000). The effect of job strain on British general practitioners' mental health. *Journal of Mental Health, 9,* 637–654.

O'Connor, R. C., & Leenaars, A. A. (in press). A thematic comparison of suicide notes drawn from Northern Ireland and the United States. *Current Psychology.*

O'Connor, R. C., O'Connor, D. B., Harper, S. M., Smallwood, J., & Miles, J. (2002). Hopelessness, stress and perfectionism: The moderating effects of future thinking. Manuscript submitted for publication.

O'Connor, R. C., & Sheehy, N. P. (2000). *Understanding suicidal behavior.* Leicester, England: BPS Blackwell.

O'Connor, R. C., Sheehy, N. P., & O'Connor, D. B. (1999). A thematic analysis of suicide notes. *Crisis, 20,* 106–114.

O'Connor, R. C., Sheehy, N. P., & O'Connor, D. B. (2000). Fifty cases of general hospital parasuicide. *British Journal of Health Psychology, 5,* 83–95.

Pacht, A. R. (1984). Reflections on perfectionism. *American Psychologist, 39,* 386–390.

Pedhazur, E. J. (1997). *Multiple regression in behavioral research.* Stamford, CT: Thomson Learning.

Rehm, L. (1977). A self-control model of depression. *Behavior Therapy, 8,* 787–804.
Rice, K. G., & Lapsley, D. K. (2001). Perfectionism, coping, and emotional adjustment. *Journal of College Student Development, 42,* 157–169.
Schotte, D., & Clum, G. (1987). Problem-solving skills in suicidal psychiatric patients. *Journal of Consulting and Clinical Psychology, 55,* 49–54.
Shafran, R., & Mansell, W. (2001). Perfectionism and psychopathology: A review of research and treatment. *Clinical Psychology Review, 21,* 879–906.
Sheehy, N. P., & O'Connor, R. C. (2002). Cognitive style and suicidal behavior: Implications for therapeutic intervention, research lacunae and priorities. *British Journal of Guidance and Counselling, 30,* 353–362.
Wyatt, R., & Gilbert, P. (1998). Dimensions of perfectionism: A study exploring their relationship with perceived social rank and status. *Personality and Individual Differences, 24,* 71–79.

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The Publications and Communications (P&C) Board has opened nominations for the editorships of ***Comparative Psychology***, ***Experimental and Clinical Psychopharmacology***, ***Journal of Abnormal Psychology***, ***Journal of Counseling Psychology***, and ***JEP: Human Perception and Performance*** for the years 2006–2011. Meredith J. West, PhD, Warren K. Bickel, PhD, Timothy B. Baker, PhD, Jo-Ida C. Hansen, PhD, and David A. Rosenbaum, PhD, respectively, are the incumbent editors.

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