

Unipolar Depression, Life Context Vulnerabilities, and Drinking to Cope

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This study followed baseline samples of 424 unipolar depressed patients and 424 community controls across 10 years to investigate the association between depression and alcohol-related coping and to examine how life context vulnerabilities underlie the risk for depressed individuals to rely on drinking to cope. Findings supported all hypotheses. Depressed patients engaged in more drinking to cope than did community controls. Within individuals, more negative life events and less family support were associated with more drinking to cope across the 4 observations. Depressed patients experienced more negative life events and less family support than did community controls. These underlying life context vulnerabilities explained the relationship between depressed patient status and drinking to cope.

In recent years, mental health professionals have focused increasingly on the comorbidity of addictive and other psychiatric disorders (Kessler et al., 1997). A particular concern is the high co-occurrence of depression and alcohol-related problems (Dixit & Crum, 2000; Mueller et al., 1994). For example, examining data from over 20,000 persons interviewed in the National Institute of Mental Health Epidemiological Catchment Area Program, Regier et al. (1990) found that alcohol abuse occurred among more than one fifth of individuals with an affective disorder. On the basis of substantial evidence of the comorbidity of depression and alcohol use disorders, researchers are moving now toward understanding the underlying causes of this association (Swendsen & Merikangas, 2000). The present study followed baseline samples of 424 unipolar depressed patients and 424 community controls across 10 years to investigate the association between depression and alcohol-related coping and to examine how life context vulnerabilities underlie the risk for depressed individuals' to rely on drinking to cope.

Increasing evidence that coping deficits are involved in drinking problems is emerging from research on drinking to cope—the tendency to use alcohol to escape or otherwise manage negative emotions. In a predictive model of alcohol abuse with community adults that also included general coping skills and positive alcohol expectancies, Cooper, Russell, and George (1988) found that reliance on drinking as a coping strategy emerged as the most powerful explanatory variable in the model. In a sample of community adults, Carpenter and Hasin (1999) found empirical support for a model in which the use of alcohol to cope with negative affect operated as a risk factor for developing an alcohol use disorder.

Integrating findings on the comorbidity of depression and alcohol-related problems (Dixit & Crum, 2000; Mueller et al., 1994; Regier et al., 1990; Swendsen & Merikangas, 2000) with those on the role of coping deficits in drinking problems (Carpenter & Hasin, 1999; Cooper et al., 1988), we reasoned that depressed individuals may be especially vulnerable to drinking to cope. Although we do not know of any research on the association between depression and drinking to cope, there is evidence of a link between depression and avoidance-oriented coping more generally. Compared with nondepressed individuals, depressed persons use more emotion regulation coping strategies, such as escape-avoidance (Coyne, Aldwin, & Lazarus, 1981; Folkman & Lazarus, 1986). For example, in a community sample, Rohde, Lewinsohn, Tilson, and Seeley (1990) found that depressed individuals used more escapist-oriented coping behaviors and that these avoidance strategies were linked to future depression. Reliance on avoidance coping was also associated with poorer recovery among elderly depressed outpatients (Gaston, Marmar, Thompson, & Gallagher, 1988).

In addition, we believed that social contextual models of depression (Cronkite & Moos, 1995; Holahan, Moos, & Bonin, 1999;

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Joiner, Coyne, & Blalock, 1999) might be relevant to explaining the risk for depressed individuals to rely on alcohol-related coping. We are not aware of any previous research on life context factors as determinants of drinking to cope. However, previous research on avoidance coping indicates that high stressors and low social resources are linked to avoidance strategies more generally. For example, negative life events predict the use of more avoidance coping (Holahan & Moos, 1987). In contrast, individuals in supportive families engage in less avoidance and more problem-focused coping than do those in less supportive families (Holahan, Moos, Holahan, & Brennan, 1995, 1997). Similarly, Manne and Zautra (1989) found that among women with rheumatoid arthritis, spouse support was linked to less wishful thinking and more reliance on cognitive restructuring and information seeking.

We reasoned that deficits pertaining to these underlying life context vulnerabilities might explain a relationship between depressed patient status and drinking to cope. Depressed patients experience an unfavorable balance of high stressors and low social resources that may foster maladaptive coping (Barnett & Gotlib, 1988). Negative life events are implicated in the onset and course of depression among both clinical and nonclinical populations (Monroe & Depue, 1991; Monroe & McQuaid, 1994). Likewise, a reduction in severe difficulty is associated with improvement in chronic depressive symptoms among women (Brown, Bifulco, Harris, & Bridge, 1986). The link between life stressors and depression may be further strengthened by a tendency for depressed individuals to experience negative events that are a consequence of the social environment they create (Hammen, 1991, 1999; Monroe, Kupfer, & Frank, 1992).

Moreover, there is consistent empirical support for an association between a lack of social support and depression (Joiner et al., 1999; Monroe, Bromet, Connell, & Steiner, 1986). For example, depression is associated with the lack of a confiding, intimate relationship (Dean, Kolody, & Wood, 1990) and with marital or family conflict (Coyne et al., 1987; Crowther, 1985). Moreover, social resources such as supportive family environments and a confidant at treatment intake are associated with better treatment outcome among depressed patients (I. W. Miller et al., 1992; Steinmetz, Lewinsohn, & Antonuccio, 1983).

Present Study

Although considerable evidence indicates that clinically depressed individuals are vulnerable to alcohol-related problems (Dixit & Crum, 2000; Mueller et al., 1994; Regier et al., 1990; Swendsen & Merikangas, 2000), we do not know of any research that has examined differences in alcohol-related coping between depressed and nondepressed individuals. Moreover, although increasing evidence points to the etiologic significance of drinking to cope in alcohol use and abuse (Carpenter & Hasin, 1999; Cooper et al., 1988), prior studies have not examined life context factors as determinants of drinking to cope. Finally, no knowledge is available on whether life context vulnerability factors associated with clinical depression (Barnett & Gotlib, 1988) may underlie an association between depression and alcohol-related coping deficits. The present study addresses each of these issues.

This study is part of a longitudinal project on an initial group of 424 patients who entered treatment for unipolar depression and 424 matched community controls. Earlier research on the 10-year

follow-up of these samples has examined life context factors in depression remission and relapse (Cronkite, Moos, Twohey, Cohen, & Swindle, 1998; Holahan, Moos, Holahan, & Cronkite, 2000; Moos, Cronkite, & Moos, 1998) and the role of drinking to cope in predicting drinking behavior among both depressed patients and community controls (Holahan, Moos, Holahan, Cronkite, & Randall, 2001, 2003). The present study extends this prior research by applying knowledge about life context vulnerabilities associated with clinical depression in explaining the association between clinical depression and alcohol-related coping.

Specifically, the present study investigates: (a) the association between clinical depression and drinking to cope, (b) the within-subject relationship between life context factors (high life stressors and low family support) and drinking to cope across 10 years, (c) the association between clinical depression and vulnerabilities in these life context domains, and (d) the role of these underlying life context vulnerabilities in explaining the risk for depressed patients to rely on drinking to cope.

We first conducted a preliminary analysis (see *Preliminary Analysis* section), replicating earlier research that had indicated that depressed patients are at risk for experiencing drinking problems (Dixit & Crum, 2000; Mueller et al., 1994; Regier et al., 1990; Swendsen & Merikangas, 2000). Next, four hypotheses were tested. Extending research on depression and avoidance coping more generally (Coyne et al., 1981; Folkman & Lazarus, 1986; Gaston et al., 1988; Rohde et al., 1990), we predicted that depression would be associated with more drinking to cope. Extrapolating from research on determinants of avoidance coping (Holahan & Moos, 1987; Holahan et al., 1995, Holahan, Moos, & Bonin, 1997; Manne & Zautra, 1989), we predicted that, within individuals, more negative life events and less family support would be associated with more drinking to cope across the four observations. On the basis of research on the association between life context factors and depression (Coyne et al., 1987; Dean et al., 1990; Monroe et al., 1986; Monroe & Depue, 1991; Monroe & McQuaid, 1994), we hypothesized that depressed patients would experience more negative life events and less family support than would community controls. Finally, integrating research on determinants of avoidance coping (Holahan & Moos, 1987; Holahan et al., 1995; Holahan, Moos, Holahan, & Brennan, 1997; Manne & Zautra, 1989) with that on the association between life context factors and depression (Coyne et al., 1987; Dean et al., 1990; Monroe et al., 1986; Monroe & Depue, 1991; Monroe & McQuaid, 1994), we predicted that vulnerabilities in these life context domains would explain the risk for depressed individuals to rely on drinking to cope.

Method

Sample Selection and Characteristics

Two samples of adults (ages 18 years or older) were selected: a sample of depressed patients who were entering treatment for unipolar depressive disorders and a sample of community controls who were matched with the patients in terms of area of residence and marital status (for more information on these samples, see Cronkite et al., 1998; Moos et al., 1998). All variables were assessed at four times over a 10-year period (baseline and 1-, 4-, and 10-year follow-ups). Although depressive symptoms dropped significantly over the 10-year period among the depressed patients (analysis of variance, $p < .01$), the depressed patients remained significantly

more depressed than did the community controls at each of the four times (analyses of variance, $p < .01$, Bonferroni corrected). Dropouts over the 10 years were minimized by rigorously maintaining contact information; systematically following participants through mail, telephone, and (when necessary) personal contacts; and paying participants for completing each survey.

Patient sample. A sample of 424 depressed patients was selected from depressed persons in the San Francisco Bay Area who began new treatment at one of five facilities (two community mental health centers, a university hospital, a health maintenance organization, and a Department of Veterans Affairs medical center). All patients had a major (65%) or minor (35%) unipolar depressive disorder according to the Research Diagnostic Criteria for Depression (Spitzer, Endicott, & Robins, 1978). Diagnostic information was obtained by trained research staff, who used specifically designed checklists for psychiatric symptoms specified in the Research Diagnostic Criteria for Depression in reviewing clinicians' intake and treatment records from the current and prior treatment episodes. In those cases in which information on symptoms could not be determined from records (approximately 15% of cases), treatment staff was consulted or research staff interviewed the patient. Because the depressed patient sample was initially selected for a study on primary unipolar depression, several exclusion criteria were used at baseline. On the basis of a chart review, patients were excluded if they had a current diagnosis of alcoholism (or if significant alcohol abuse was noted in the past 6 months) or if they had current neuropsychological, metabolic, or manic diagnoses.

Depressed patients were contacted initially at the treatment facility. Of those contacted at baseline, 92% agreed to participate and 81% of these ($n = 424$) provided data. The participation rate for living respondents averaged 90% at each of the three follow-up assessments (53 participants died across the 10-year period). At the 1-, 4-, and 10-year follow-ups, the number of participants was 395, 370, and 318, respectively.

Depressed patients who continued to participate through the 10-year follow-up did not differ significantly at baseline on any of the study variables from those who did not continue to participate (t tests, $p > .05$). At baseline, the patient sample comprised 235 women (55%) and 189 men (45%) and the mean age of respondents was 40 years ($SD = 14.1$; range: 18–83 years). A total of 43% of respondents were married. The ethnic distribution of the sample was 85% Caucasian, 4% Hispanic, 4% African American, 2% Asian, and 5% other ethnic backgrounds. Mean annual family income was \$18,000 ($SD = \$10,000$).

Community sample. A sample of 424 community controls was matched demographically with the patients in terms of area of residence and marital status. The community sample was selected by a procedure in which a household was sampled randomly from the same census tract and within a 12-square-block area surrounding a matched patient's block. A new household was randomly selected if the household did not match the patient's marital status. To make the community sample as representative as possible, we used no additional exclusions other than the matching criteria pertaining to area of residence and marital status. Of those contacted at baseline, 87% agreed to participate and 84% of these ($n = 424$) provided data. Community controls were contacted initially by telephone. The participation rate for living respondents averaged 95% at each of the three follow-up assessments. At the 1-, 4-, and 10-year follow-ups, the number of participants was 404, 386, and 332, respectively.

Community participants who continued to participate through the 10-year follow-up did not differ significantly at baseline from those who did not continue to participate on any study variables (t tests, $p > .05$). At baseline, the community sample comprised 231 women (54%) and 193 men (46%) and the mean age of respondents was 39 years ($SD = 15.6$; range: 18–88 years). A total of 43% of respondents were married. The ethnic distribution of the sample was 88% Caucasian, 4% Hispanic, 2% African American, 3% Asian, and 3% other ethnic backgrounds. Mean annual family income was \$24,000 ($SD = 8,900$).

Measures

Detailed descriptive and psychometric information on the measures is available in the following sources. The Health and Daily Living Form (Moos, Cronkite, & Finney, 1992) includes the negative life events, drinking to cope, and drinking problems measures. The Family Environment Scale (FES; Moos & Moos, 1994) includes the family support measure. These measures are similar to other commonly used indexes and relate empirically to other variables and to health outcomes in expected ways. For examples of studies using these measures, see Cronkite et al. (1998), Holahan and Moos (1990, 1991), Holahan et al. (2000, 2001, 2003), and Moos et al. (1998).

Negative life events. The survey ascertained the number of negative life events that the respondent had experienced during the previous 12 months from a list of 15 relatively serious negative life events (e.g., death of a close friend, unemployed for a month or more, and income decreased substantially).

Family support. An index of the quality of family relationships was derived from the FES (Moos & Moos, 1994). The FES evaluates the social climate of all types of families on 10 subscales. Following previous research (Holahan & Moos, 1987, 1990, 1991; Holahan et al., 2000), family support was measured by the Family Relationships Index; that is, the three subscales that compose the relationship domain of the FES. These subscales are Cohesion, the degree to which family members are helpful and supportive of each other; Expressiveness, the extent to which family members are encouraged to act openly and express their feelings directly; and Conflict, the extent to which the expression of anger and conflict-laden interactions are characteristic of the family (reversed scoring). Each of these subscales consists of nine true–false items. The subscale scores are the sums of items marked in the designated direction; the family support score was the mean of the three subscales (average Cronbach's $\alpha = .81$ across the four observations). Previous work (Moos & Moos, 1994) has demonstrated that these subscales show good 1-month test–retest reliability (average $r = .81$).

Drinking to cope. Consistent with the approach used most commonly to assess coping (Folkman & Lazarus, 1988; Moos, 1993), respondents were asked to pick the “most important problem” they faced during the previous 12 months and to indicate how often they used each of a variety of coping strategies to manage it, from 0 (*not at all*) to 3 (*fairly often*). One strategy assessed drinking to cope (“Tried to reduce tension by drinking more”). This operationalization of drinking to cope is similar to other measures that assess the frequency of drinking to regulate or cope with negative emotions (Cooper, Russell, Skinner, & Windle, 1992). Although the coping strategies are anchored on a specific coping problem to increase reliability, they reflect in part generalized coping styles (Moos, 1993). For example, drinking to cope showed a 1-year stability of .55 and .61 in the present samples of depressed patients and community controls, respectively.

Previous research has demonstrated the predictive strength of the present index of drinking to cope with drinking-related outcomes. After controlling for non-alcohol-specific coping strategies (e.g., “refused to believe that it happened” and “tried to reduce tension by smoking more”), drinking to cope accounted for 10%–20% incremental variance in predicting alcohol consumption and 13% incremental variance in predicting drinking problems (Holahan et al., 2001, 2003).

Drinking problems. Drinking problems were tapped by an index of eight problems experienced in the past year because of “too much drinking.” Problem domains encompassed the following: “your health,” “your job,” “money problems,” “family arguments,” “hit someone,” “trouble in the neighborhood,” “trouble with the police,” and “trouble with friends” (average Cronbach's $\alpha = .75$ across the four observations). The drinking problems measure is positively related to other indexes of severity of drinking problems, such as alcohol consumption, days intoxicated, and dependence symptoms (Finney & Moos, 1995).

Results

Preliminary Analysis

We conducted a preliminary analysis to replicate earlier research that had indicated that clinically depressed patients are at risk for experiencing drinking problems (operationalized as presence vs. absence of any drinking problems). Across the four assessments, patient-control status was significantly associated with drinking problems, $\chi^2(1, N = 610) = 20.21, p < .01$. Depressed patients were more than twice as likely as community controls to report drinking problems, with 27% of depressed patients (78 of 290 individuals) experiencing drinking problems compared with 13% of community controls (40 of 320 individuals). This is a conservative estimate because patients with identified alcohol abuse disorders at baseline were excluded from the present study.

Depression and Drinking to Cope

We examined the association between depressed patient status and drinking to cope in a 2 (depression status) \times 4 (time) analysis of variance with drinking to cope as the dependent variable. As predicted, depression status was significantly associated with a greater reliance on drinking to cope, $F(1, 580) = 21.37, p < .01$. Follow-up one-factor (depression status) analyses of variance at each time point showed that depressed patients reported significantly ($p < .05$, Bonferroni corrected) more drinking to cope than did community controls at each of the four time points (see Table 1). We repeated these analyses controlling for gender and age (see Schutte, Hearst, & Moos, 1997); all analyses remained significant ($p < .05$). At baseline, 28% of depressed patients reported some drinking to cope compared with 18% of community controls. Across all four assessments, 54% of depressed patients reported some drinking to cope compared with 37% of community controls.

Life Context and Drinking to Cope

We turned next to examining determinants of drinking to cope using hierarchical linear modeling (HLM) Version 5 (Bryk, Raudenbush, Cheong, & Congdon, 2000). Within individuals (Level 1), we examined the relationships between both negative life events and family support and drinking to cope over repeated observations. These Level 1 relationships are represented by a slope coefficient (beta, unstandardized) for each individual. Initial

analyses indicated that both life context factors made significant ($p < .01$) unique contributions to predicting drinking to cope among both depressed patients and community controls. Thus, for simplicity, results are reported for the combined samples (the sample size for these analyses is 556).

On average, within individuals, more negative life events ($B = 0.059$), $t(554) = 4.30, p < .01$, and less family support ($B = -0.064$), $t(554) = -4.45, p < .01$, made significant unique contributions to predicting more drinking to cope. As an illustration, Figure 1 shows the relationships between life context factors and drinking to cope across the four observations for the average participant, with the slopes for negative life events and family support adjusted for one another. (Slopes are plotted across a representative range; negative life events ranged from 0 to 11 and family support ranged from 0 to 9.) We repeated this HLM analysis controlling for gender and age; all effects remained significant ($p < .01$).

Next, between individuals (Level 2), we examined whether depression versus control status moderated the strength of the individual slope coefficients from Level 1, which then functioned as outcome variables. A slope coefficient (G , unstandardized) was derived indicating how strongly depression versus control status was associated with the life context–drinking to cope relationships. Depression status was not significantly associated with the relationship between either negative life events ($G = -.013$), $t(554) = -0.46, ns$, or family support ($G = -.006$), $t(554) = -0.21, ns$, and drinking to cope. Thus, more negative life events and less family support were independently associated with more drinking to cope, and the strength of these relationships was comparable for depressed patients and community controls.

Life Context, Depression, and Drinking to Cope

We then examined the prediction that depressed patients experience high negative life events and low family support. We compared the depressed patients and community controls in a 2 (depression status) \times 4 (time) multivariate analysis of variance with negative life events and family support as dependent variables.¹ As predicted, depression status was significantly associated with these life context factors, $F(2, 460) = 40.85, p < .01$. Comparable 2 \times 4 univariate analyses of variance showed that the depression status main effect was significant for both negative life events and family support ($p < .01$, Bonferroni corrected), with depressed patients experiencing more negative life events and less family support than did community controls (see Table 2).

Finally, we examined the role of these underlying life context vulnerabilities in explaining depressed individuals' reliance on drinking to cope. We repeated the earlier 2 (depression status) \times 4 (time) analysis of variance with drinking to cope as the dependent variable, controlling for negative life events and family support at the four time points. As predicted, controlling for negative life events and family support, the association between depression status and drinking to cope was no longer significant, $F(1, 439) =$

Table 1
Means (Standard Deviations) and Analyses of Variance (ANOVAs) Results Comparing Depressed Patients and Community Controls on Drinking to Cope at Each Assessment

Assessment	Group		ANOVA	
	Patient	Control	df	F
Time 1	0.52 (0.93)	0.31 (0.74)	1, 832	12.86**
Time 2	0.48 (0.89)	0.26 (0.67)	1, 772	15.66**
Time 3	0.48 (0.91)	0.29 (0.68)	1, 704	10.34**
Time 4	0.39 (0.85)	0.24 (0.64)	1, 627	6.48*

* $p < .05$. ** $p < .01$.

¹ To adjust for missing data on the family support measure, we used mean family support in analyses of variance conducted across time if the respondent provided family support data for at least two of the four observations. In fact, the results are the same regardless of how missing data are handled.

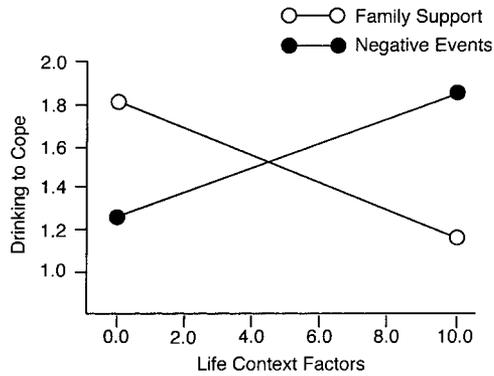


Figure 1. Relationships between life context factors and drinking to cope across the four observations for the average subject. The slopes for negative life events and family support are adjusted for one another.

1.40, *ns*. Similarly, controlling for contemporaneous negative life events and family support, the association between depression status and drinking to cope was no longer significant ($p > .05$, Bonferroni corrected) in analyses of variance at any of the four time points.

The strength of the association between depression status and life context vulnerability is especially apparent in casewise analyses that contrasted extreme groups reflecting low versus high levels of vulnerability across the four assessments. Low vulnerability was operationalized as being below the median in negative life events and above the median in family support. High vulnerability was operationalized as being above the median in negative life events and below the median in family support. Life context vulnerability was significantly associated with depression-control status, $\chi^2(1, N = 269) = 54.24, p < .01$. Whereas community controls comprised almost three fourths of the low vulnerability group (123 of 171 individuals, 72%), depressed patients comprised almost three fourths of the high vulnerability group (73 of 98 individuals, 74%).

Discussion

The present study followed baseline samples of 424 depressed patients and 424 community controls across 10 years to investigate alcohol-related coping among clinically depressed individuals and to examine how life context vulnerabilities associated with clinical depression underlie the risk for depressed individuals to rely on

drinking to cope. Findings supported all hypotheses. Depressed patients engaged in more drinking to cope than did community controls. Within individuals, more negative life events and less family support were associated with more drinking to cope across the four observations. Depressed patients experienced more negative life events and less family support than did community controls. Especially important, these underlying life context vulnerabilities explained the relationship between depressed patient status and drinking to cope.

Consistent with previous research on the comorbidity of depression and alcohol-related problems (Dixit & Crum, 2000; Regier et al., 1990; Swendsen & Merikangas, 2000), we found in preliminary analyses that depressed patients were more than twice as likely to report drinking problems as were community controls. Most important, the present findings extend previous research by helping to explain the underlying causes of the comorbidity between depression and alcohol use. We showed that depressed patients engaged in more drinking to cope than did community controls at all four assessments across the 10-year period. These results extend previous research on the vulnerability of depressed individuals to reliance on avoidance-oriented coping more generally (Coyne et al., 1981; Folkman & Lazarus, 1986; Gaston et al., 1988; Rohde et al., 1990). More broadly, these findings demonstrate the value of extending research on drinking to cope (Carpenter & Hasin, 1999; Cooper et al., 1988) to examining substance-related coping deficits in psychiatric samples.

Although increasing evidence points to the importance of drinking to cope in predicting alcohol use and abuse (Carpenter & Hasin, 1999; Cooper et al., 1988; Holahan et al., 2001, 2003), no previous studies have examined determinants of drinking to cope. Extending previous research on determinants of avoidance coping more generally (Holahan & Moos, 1987; Holahan et al., 1995; Holahan, Moos, Holahan, & Brennan, 1997; Manne & Zautra, 1989), we showed that more negative life events and less family support were independently linked to more drinking to cope. The strength of these relationships was comparable for depressed patients and community controls. The findings pertaining to negative life events are consistent with the view that individuals turn to alcohol as a coping mechanism when their adaptive resources are challenged (Moos, Finney, & Cronkite, 1990).

The findings pertaining to family support broaden a resources model of coping (Holahan, Moos, & Bonin, 1997) to encompass alcohol-related coping. Lazarus and Folkman (1984) defined social resources as what an individual "draws on in order to cope" and Thoits (1986, 1995) described social resources as "a social 'fund'

Table 2
Means (and Standard Deviations) and Analyses of Variance (ANOVAs) Results Comparing Groups on Measures Across Assessments

Variable	Group	Assessment				Across Time	ANOVA	
		Time 1	Time 2	Time 3	Time 4		<i>df</i>	<i>F</i>
Negative events	Patients	2.40 (2.02)	2.25 (2.05)	1.79 (1.80)	1.88 (1.88)	2.12 (1.32)	1, 608	53.40**
	Controls	1.35 (1.50)	1.44 (1.58)	1.34 (1.50)	1.37 (1.54)			
Family support	Patients	5.28 (1.88)	5.56 (1.88)	6.03 (1.74)	6.17 (1.77)	5.75 (1.44)	1, 583	72.42**
	Controls	6.56 (1.51)	6.73 (1.34)	6.66 (1.54)	6.72 (1.40)			

** $p < .01$.

from which people may draw when handling stressors" (1995, p. 64). Social resources can bolster coping efforts by promoting feelings of self-confidence that can enable an individual to face a stressful situation that otherwise might seem overwhelming (Heller, Swindle, & Dusenbury, 1986; Sarason, Sarason, & Pierce, 1990).

Moreover, the present findings extend social contextual models of depression (Cronkite & Moos, 1995; Holahan et al., 1999; Joiner et al., 1999) to increase our understanding of the risk for depressed individuals to rely on alcohol-related coping. Consistent with previous research (Coyne et al., 1987; Cronkite et al., 1998; Dean et al., 1990; Monroe et al., 1986; Monroe & Depue, 1991; Monroe & McQuaid, 1994), we found that depressed patients experienced more negative life events and less family support than did community controls. Especially important, we showed that these underlying life context vulnerabilities explained the risk for depressed individuals to rely on drinking to cope.

The control for contemporaneous life context factors erased the link between depression and drinking to cope at all four time points. Thus, although negative life events and low family support are linked to drinking to cope among both depressed and nondepressed persons, depressed patients are at increased risk for drinking to cope because of their greater vulnerability in these life context domains. The differential vulnerability of depressed patients in these areas is profound. Community controls comprised almost three fourths of individuals experiencing a favorable combination of low stressors and high support, whereas depressed patients comprised almost three fourths of individuals experiencing an unfavorable combination of high stressors and low support. For depressed individuals with high stressors and inadequate social resources, alcohol's mood-altering properties offer an enticing antidote for dysphoric affect (Hodgins, el-Guebaly, & Armstrong, 1995).

Some limitations should be noted in interpreting these results. Self-report measures are subject to both social desirability and common method variance. In addition, use of a single item to index drinking to cope may both underrepresent this construct and tap some irrelevant components. Both of these limitations tend to reduce statistical power and would be of greater concern in the context of negative findings. Nevertheless, future research is needed to extend our findings to include a broader measure of drinking to cope (cf. Cooper et al., 1992) and to include objective indexes of alcohol consumption and drinking problems.

Because alcohol-related problems predict poorer depression treatment outcome (Mueller et al., 1994), an understanding of vulnerability factors that make depressed individuals susceptible to relying on alcohol as a coping strategy is of clinical relevance. Applying our findings to treatment can broaden the conventional treatment framework for depressed individuals by underscoring the importance of life context factors in promoting comorbid alcohol abuse (W. R. Miller & Brown, 1997). Life context vulnerabilities continue long after treatment, are pervasive and intense, and have a strong impact on outcome. Recognizing that stressful or relapse-inducing life situations inevitably occur, clinicians can identify coping resources that depressed patients can utilize to help them deal with these situations more effectively without turning to alcohol as a palliative.

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