

Hard Times and Hurtful Partners: How Financial Strain Affects Depression and Relationship Satisfaction of Unemployed Persons and Their Spouses

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The process linking unemployment and economic hardship to depression and marital or relationship satisfaction in couples was examined. Using structural equation modeling, the authors tested models in which financial strain and partners' symptoms of depression influence the behavioral exchange of the couples in terms of social support and social undermining and, in turn, the effects of support and undermining on relationship satisfaction and depressive symptoms. The analyses were based on longitudinal data from 815 recently unemployed job seekers and their spouses or partners. The results demonstrated that financial strain had significant effects on depressive symptoms of both partners, which in turn led the partner to withdraw social support and increase social undermining. Reduced supportive and increased undermining behaviors had additional adverse effects on satisfaction with the relationship and on depressive symptoms.

In this study we examined the paths by which major life stressors—job loss and unemployment—increase the risk of marital dissatisfaction and depressive symptomatology among couples. The widespread impact of structural changes in the labor market suggests that these life stressors will continue to be experienced by millions of displaced workers (Hansen, 1988). Understanding the process of coping with job loss and unemployment requires an exploration of the course of the mediating events that affect all family members. Below we review the evidence that job loss and unemployment produce a variety of negative outcomes for the entire family and are therefore relevant stressors for the study of coping and well-being of couples. On the basis of that review, we suggest a set of hypotheses regarding the critical factors that contribute directly and through mediating processes to the poor mental health and well-being of unemployed persons. We test and discuss alternative models and their implications for the design of preventive interventions.

Job loss and unemployment have been found to contribute to a wide range of negative physical and mental health outcomes (for a review see Catalano, 1991). Of these outcomes, the most prominent and consistent are symptoms of psychiatric disorders and distress, in particular, depressive symptomatology

(e.g., Catalano, 1991; Catalano & Dooley, 1977; Dew, Bromet, & Schulberg, 1987; Hamilton, Broman, Hoffman, & Brenner, 1990; Kessler, Turner, & House, 1988, 1989). In recent years, a growing number of studies have demonstrated that the effects of job loss on depressive symptomatology and on related indicators of poor mental health are mediated by objective economic hardship and the related psychological experience of economic pressure or financial strain (Kessler, Turner, & House, 1987, 1988; Pearlin, Menaghan, Lieberman, & Mullan, 1981). Findings from a community sample of recently unemployed people suggest that financial strain is a risk factor for subsequent clinically significant levels of depressive symptomatology (Price, van Ryn, & Vinokur, 1992).

In the family, the negative impact of economic hardship may extend beyond the depression and poor mental health of the job loser (Price, 1992). Economic hardship may give rise to other negative life events contributing to growing frustration that may trigger and sustain a variety of destructive interaction patterns among family members (Berkowitz, 1989). Such deleterious effects of job loss and unemployment include child abuse (Justice & Duncan, 1977; Steinberg, Catalano, & Dooley, 1981), decreases in the mental health of the spouse (Penkower, Bromet, & Dew, 1988), decreases in marital quality (Liem & Liem, 1988), and increases in marital and family dissolution (Liem & Liem, 1988).

A recent study by Conger and his associates (Conger et al., 1990) suggests that the objective economic hardship of the family increases marital instability through a mediating chain of events that includes perceived economic pressure (henceforth referred to as *financial strain*), which increases hostile and decreases warm styles of family interaction. These interactions, in turn, undermine marital and relationship quality. The measures Conger et al. (1990) used to assess the marital interaction in terms of warmth and hostility are very similar to those cited in the literature to assess social support and social conflict or undermining. That literature has shown consistent effects of so-

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cial support and undermining on mental health and well-being (Abbey, Abramis, & Caplan, 1985; Ruehlman & Wolchik, 1988), including depression (Krause, Liang, & Yatomi, 1989; Russell & Cutrona, 1991). *Social support* is most commonly defined as transactions with others that provide the recipient with emotional support, affirmation of the self, appraisal of the situation, instrumental support, and information (House, 1981; Vaux, 1988). From the same transactional perspective, *social undermining* is defined as behaviors directed toward the target person that display (a) negative affect (anger, dislike); (b) negative evaluation of the person in terms of his or her attributes, actions, and efforts (criticism); and (c) behaviors that hinder the attainment of instrumental goals (e.g., Abbey et al., 1985; Rook, 1984).

As we conceive of the interaction patterns among the romantic or marital partners in terms of social support and undermining behaviors, we need to examine whether these responses may actually represent two poles of the same unidimensional scale. Despite the high negative correlations between support and undermining, Vinokur and van Ryn (1993) showed that these two interaction patterns do not constitute poles of the same unidimensional scale but instead have independent effects on mental health. However, there is still a question of whether support and undermining also exhibit independent effects with respect to a more closely related outcome of the couple's interaction process, such as marital or relationship satisfaction.

Whereas social support is viewed as a coping resource (Thoits, 1986) that is capable of reducing the threat embedded in a stressful situation, social undermining is conceptualized as a *direct* form of threat and is not merely the absence or withdrawal of coping resources (Abbey et al., 1985; Shinn, Lehmann, & Wong, 1984). Social undermining is a more salient threat and therefore is hypothesized to produce greater stress and have greater impact in circumstances and relationships that involve status and power differences. Researchers have hypothesized that women's lower status and power in marital relationships (Eagly, 1983; Marini, 1980; Menaghan, 1991) increase their vulnerability to threats. Compared to men, women's vulnerability may exacerbate the adverse effect of social undermining on depression and marital or relationship satisfaction.

In the literature on the effects of job loss and unemployment on mental health, and in the literature on social support and social undermining, elevated depressive symptoms appear as the most frequent and consistent outcome of low support and high undermining interaction patterns. Furthermore, just as unemployment and economic hardship have been implicated as factors that contribute to family dissolution, so is spouse depression implicated in the literature as a contributing factor to marital dissatisfaction, separation, and divorce (Coleman & Miller, 1975; Coyne et al., 1987; Dew & Bromet, 1991). In a similar vein, other studies implicate poor marriage as a risk factor for depression (Weissman, 1987) or, more specifically, as a precipitating cause (P. A. Barnett & Gotlib, 1988; Gotlib & Whiffen, 1989). However, it is possible that both depression and marital satisfaction are largely determined by the quality of the interpersonal interactions among the partners and that their observed relationship is a function of having a common factor, quality of interaction, that influences both. In this study we examine this possibility in findings based on longitudinal data in

which the effects of common factors and baseline measures are controlled.

The major goal of this article is to provide a detailed examination of the process by which the economic hardship initiated by a job loss affects depression and relationship satisfaction of job seekers and their partners' depression. In recent years a growing number of studies have focused on the transmission of stress or its effects from one spouse to the other (Bolger, DeLongis, Kessler, & Schilling, 1989; Liem & Liem, 1988; Jackson & Maslach, 1982; Rook, Dooley, & Catalano, 1991). These studies regard the associations between partners' levels of stress, depression, or similar strain indicators, such as burnout (Westman & Etzion, 1995), as evidence that stress crosses over and affects the other partner. There remains the question of whether the reported associations between levels of stress or strain in these studies, and more specifically in our study between depression symptoms of job seekers and their partners, represent direct crossover effects or whether they represent effects of a common stressor (financial strain) on the level of depression in both partners. We propose that the key bridging mechanism of crossover is the effects of the stressor on the interaction pattern of one partner toward the other, which in turn influences the levels of stress and strain experienced by the other partner. In the case of the unemployed job losers and their partners, financial strain is hypothesized to generate a spiraling process of negative interaction between partners, leading to increases in depressive symptoms in both partners. As this process accelerates it results in an additional increase in depressive symptoms, a decrease in relationship satisfaction of both partners, and, in some cases, leads to separation and divorce (Gottman & Levenson, 1992).

Our key hypothesis is that, for the most part, the adverse effects of economic hardship and financial strain are mediated through the dysfunctional exchanges in couples in terms of social undermining and social support. A more detailed form of this hypothesis stipulates that job loss and the ensuing financial strain increase frustration, depression, and hostility in both partners. The depressed mood state of each partner exacerbates the partner's negative affect, distress, and hostility (Coyne, 1976a, 1976b; Coyne et al., 1987; Ruscher & Gotlib, 1988) and leads to the withdrawal of socially supportive behaviors (Coyne & DeLongis, 1986) and the increase of socially undermining behaviors. As the negative interaction pattern between the partners builds, it provides an additional independent contribution to the adverse effects of financial strain on depression.

This theoretical account leads to three related but specific questions: (1) How much of the mental health of the partner of the unemployed person is affected by the economic hardship generated by the job loss? (2) What is the impact of the partner's mental health on the mental health of the unemployed job seeker? and (3) Does financial strain affect social support and undermining directly, or is the effect primarily, or even entirely, a mediated chain in which the adverse impact of financial strain on the partner's depression increases the partner's undermining and decreases the partner's provision of social support to the job seeker? In this study, we have data only on the partner's own socially supportive and undermining behaviors toward the job seeker and on the job seeker's perceived support and undermining from the partner. Consequently, we explored the last two

questions only with respect to the behaviors and effects of the partners' depression and behavior on the job seekers' outcomes.

To address these questions, we conducted analyses on longitudinal data collected from a heterogeneous community sample of individuals experiencing a recent job loss and from their spouses or romantically attached partners. Previous researchers have examined only parts of this model and have done so using a cross-sectional design (Conger et al., 1990). The current longitudinal design allows us to examine changes in depression and relationship satisfaction as a function of changes in financial strain, social support, and social undermining. To provide more accurate estimates of the relative impact of the independent variables than is possible with standard regression analysis, our statistical analyses rely on structural equation modeling with multiple indicators.

Method

Overview of the Sample and the Design

This study is based on data collected in a new field study that tested a modified version of an earlier intervention for unemployed persons. In previous studies with other samples, we examined the effects of intervention with job seekers (Caplan, Vinokur, Price, & van Ryn, 1989) and global effects of social support and social undermining on well-being (Vinokur & van Ryn, 1993). Unlike the earlier studies, this new study includes data from the spouses or the significant others of the job seekers. The analyses reported here are based on data collected at two time periods from a subsample of the 2,005 unemployed job seekers and their partners. The partners were spouses or significant others who reported living with the job seeker as a couple in a romantic relationship. Detailed information about this study, including the characteristics of the new sample, recruitment of respondents, the intervention process, and its assessment were reported by Vinokur, Price, and Schul (1995).

Respondents, Design, and Procedure

Sample and data collection. Respondents were recruited from four state unemployment offices in southeast Michigan to participate in a study on stress, health, work, and unemployment. Eligible respondents were those who had lost their job within the last 13 weeks ($M = 4$ weeks) and were still seeking reemployment. The subsample for the analyses in the present investigation includes 815 recently unemployed job seekers who reported living with a spouse or a partner in a romantic relationship as a couple, and their 815 spouses or romantically attached partners. Of the 815 job seekers, 644 (79%) were married, 94 (11.5%) had never been married, 64 (7.9%) were divorced, and 14 (1.5%) were separated or widowed; 447 (55%) were men and 368 (45%) were women. All of the job seekers were unemployed at the first wave of data collection, which took place during February through July of 1991. The analyses used in the present study also include data from the 6-month follow-up. At the follow-up, nearly 50% of the job seekers were reemployed. However, to maintain the consistency in our description distinguishing between job seekers and their partners, we refer to all of the recruited unemployed respondents as *job seekers* whether or not they became reemployed at the 6-month follow-up.

A randomized field experiment and a survey were embedded in the design of the study. Of those 815 job seekers with partners in the analyses, 501 were included in the experimental condition and 314 were in the control condition. Respondents in the experimental condition were invited to participate in five 4-hour sessions of a job search seminar that focused on enhancing job search skills, job search self-efficacy, and the

motivation to seek a job. Respondents in the control condition received a short self-instructional brochure that described the job search strategies taught in the seminar. Data from all job seekers and their partners were collected through self-administered questionnaires mailed to them with \$5 payment.

The specific sampling design was intended to serve the purpose of the field experiment and is not a concern in the present study. However, we conducted several tests to ensure that the experimental intervention did not confound the analyses and findings on the effects of social support and undermining on mental health reported in this article. First, we tested for mean differences of the global indices and of all the subindices of social support and social undermining between the experimental and the control conditions at each of the two waves of data collection. Second, we tested for differences between the experimental and the control conditions in the structural models described below. There were no statistically significant differences in the means of the indices or in any of the structural models of the two conditions.

Response rate. Of those who were found eligible and recruited to the study, 73% completed and returned the pretest (Time 1 [T1]) mailed questionnaire; of those, 87% completed the 6-month follow-up questionnaire. The partners' response rates were 82% and 81% of the job seekers' rates at pretest and follow-up, respectively. However, in the subsample of married and romantic partners used for the present study, the response rate was substantially higher. For example, the partners' response rate at the 6-month follow-up was 90%.

Characteristics of the originally recruited sample. The demographic characteristics of the overall sample of 2,005 respondents who were enrolled in the study by returning the T1 pretest questionnaire were similar in many respects to those of the U.S. unemployed population as reported by the U.S. Bureau of Labor Statistics (1992) and to representative community survey samples of unemployed persons (Kessler et al., 1988). For example, the median age of the sample was 34.7 years ($M = 36.02$, $SD = 10.38$); it included 45% men, 21.5% African Americans, 76% Whites, 41% married, and a mean of \$1,881 monthly income from last job. The U.S. unemployed population during 1991 had a median age of 30.4 years and included 58% men, 20% African Americans, 76% Whites, and 41% married. In our sample only 8.6% had not completed high school, 32.4% had a high school education, 35.8% had some college education, 13% had completed 4 years of college, and 10.2% had completed more than 4 years of college. Respondents were recruited to the study between 1 and 13 weeks following their job loss ($M = 4.11$; $SD = 3.8$). They had worked on their last job for a mean of 3.85 years ($SD = 5.01$), working 43.21 hours per week ($SD = 9.52$ hours) and earning \$10.01 ($SD = \4.86) per hour for a total annual personal income of \$22,574 ($SD = \$11,932$), and an annual median family income of \$26,024.

Characteristics of the subsample used in the current study and its response rate. Of the total sample of 2,005, eight hundred fifteen job seekers were married or lived with a romantically attached partner as a couple (as also reported by the partner). Of the 815 job seekers, there were 447 (55%) men and 368 (45%) women, 82.8% Whites, 14.6% African Americans, and 2.6% other. The mean age was 37.69 years. In regard to education, only 6.8% had not completed high school, 33.5% had a high school education, 35.2% had some college education, 12.5% had completed 4 years of college, and 12% had completed more than 4 years of college. They reported having earned \$25,080 per year (before losing their job) of a total annual family income of \$37,840 (median). Compared with the entire sample, this selected subsample included respondents who were about 3 years older, had a higher proportion of men, a \$2,506 higher mean earned annual income, and an \$11,816 higher annual family income. The latter is more likely to have resulted from having a larger proportion of spouses or partners who were working for pay outside the home. Of this subsample of 815 married and romantically attached couples, 92% of the job seekers and 90% of the partners

who enrolled in the study at T1 participated in the 6-month follow-up. Compared with the 746 job seekers who provided data at both time periods, those early respondents who dropped out of the study were significantly more dissatisfied with their relationships, had higher levels of financial strain, were younger, had less education and a lower family income, and included more non-White people and more men. They did not differ from those who also responded at follow-up in depression symptoms and in level of employment and income at the last job. Because the overall response rate exceeded 90%, any biases in the results produced by the 10% dropout are likely to be relatively small.

Measures

Most of the measures in this study were based on instruments used in earlier investigations on unemployment, stress, and social support (Abbey et al., 1985; Caplan et al., 1989; Vinokur & van Ryn, 1993). In most instances, the study used multi-item indices to maximize the internal consistency of the measures. The Cronbach's alpha coefficients of our measures ranged from .84 to .92. We constructed the index measures by averaging the ratings over the items that made up the measures. Copies of the measures are available from Amiram D. Vinokur.

Financial strain was measured with a 3-item index (Kessler et al., 1988; Vinokur & Caplan, 1987) based on answers to three questions with 5-point rating scales. The questions asked: "How difficult is it for you to live on your total household income right now?", "In the next two months, how much do you anticipate that you or your family will experience actual hardships such as inadequate housing, food, or medical attention?", and "In the next two months, how much do you anticipate having to reduce your standard of living to the bare necessities of life?". The alpha coefficients for the index ranged from .86 to .88 for the two data collection waves. For the structural analyses described below, the financial strain latent factor was indicated by two indexes, one from the job seeker and one from the spouse or romantic partner. The measure is used here to mean perceived economic pressures and is also indicative of the objective financial situation.

Social support and social undermining measures assessed the spouses' or partners' perceptions of giving or engaging in supportive and undermining behaviors toward their job seeking partners, as well as the job seekers' perceptions of receiving support or being the target of undermining acts. The measures were developed by Abbey et al. (1985) and have been used in a number of investigations with samples of respondents and significant others in studies on the effects of stressful conditions (e.g., unemployment, breast cancer) on mental health. Two of these studies provide validity information on these measures based on additional reports obtained from spouses and significant others about their own supportive and undermining behaviors (Vinokur, Schul, & Caplan, 1987; Vinokur & Vinokur-Kaplan, 1990). The social support items were chosen to represent the four functions of social support suggested by House (1981): emotional, appraisal, informational, and instrumental support. The social undermining items represent actions that directly undermine and diminish the sense of self-worth.

Receiving social support and social undermining. The measures for these constructs assessed perceived supportive and undermining behaviors by the significant other (i.e., spouse or partner of the job seeker). To measure *received social support*, the job seekers were asked to indicate on 5-point scales (1 = *not at all* to 5 = *a great deal*) how much the spouse or partner "provides you with encouragement," with "useful information," "says things that raise your self confidence," "listens to you when you need to talk," "shows that he/she cares about you as a person," "understands the way you think and feel about things," "talks with him/her when you are upset," "helps you understand and sort things out," "provides you with direct help," and "makes you feel you can rely on him/her." Using the same response scale, we assessed *received social undermining* with ratings of how much the spouse or partner "acts in unpleasant or angry manner toward you," "makes your life

difficult," "acts in ways that show he/she dislikes you," "makes you feel unwanted," "gets on your nerves," "criticizes you," and "insults you even if he/she did not mean to."

Giving social support and engaging in social undermining. The questionnaire for the spouse or partner of the job seeker included the same questions as those that were included in the questionnaire for the job seeker (described above) except that they referred to giving or providing rather than receiving support (e.g., "how much do you provide him/her with encouragement . . .") or engaging in social undermining toward the spouse or partner (e.g., "how much do you act in an unpleasant or angry manner toward him/her?").

The Cronbach's alpha coefficients of the 10-item social support and the 7-item undermining measures obtained from the job seekers were .92 and .89, respectively, and those obtained from the spouses or partners were .89 and .84, respectively. For the purpose of the structural analyses described below, each latent variable construct of social support and of social undermining was indicated by a pair of measures, one from the job seeker (i.e., receiving social support, or being undermined) and one from the significant other (i.e., giving social support, or engaging in undermining).

Depressive symptoms were measures based on the self-reports of the job seeker and of the partner. Respondents reported the extent of depressive symptoms using an 11-item scale based on the Hopkins Symptom Checklist (Derogatis, Lipmann, Rickels, Uhlenhuth, & Covi, 1974). The 11-item scale requires respondents to indicate how much (1 = *not at all*, 5 = *extremely*) they had been bothered or distressed in the last 2 weeks by various depressive symptoms such as feeling blue, having thoughts of ending one's life, and crying easily. Mean scores and coefficient alphas were computed separately for ratings of the job seekers and the partners. The coefficient alphas were, respectively, .90 and .93.

We assessed *marital or relationship satisfaction* using six items from Spanier's (1976) Dyadic Adjustment Scale that were shown to have the highest loadings on the Dyadic Satisfaction factor of the entire scale and are suitable for assessing satisfaction with the dyadic relationship. The job seekers provided ratings of how often (1 = *never* to 6 = *all the time*) "do you think that things between the two of you are going well?", "do you regret becoming involved with him/her?", "have you discussed or considered ending your relationship with him/her?", "feel satisfied with this relationship?", "feel this relationship will have a good future?", and "do you feel frustrated with this relationship?". The alpha coefficient of this 6-item measure was .91. For the structural analyses described below, the Relationship Satisfaction latent factor was indicated by the means of two 3-item subindexes formed from the 6-item scales collected from the job seekers.

Overview of the Analyses

The principal analyses consisted of confirmatory latent-variable structural modeling with the EQS program (Bentler, 1990). The structural modeling technique provides simultaneous estimation of the hypothesized regressions using the estimated covariance matrix generated on the basis of the observed covariance matrix of the measured variables. The estimated matrix is also used for evaluating the goodness of fit between the data and the model. In reporting the results of the structural equation modeling we follow the guidelines suggested by Raykov, Tomer, and Nesselrode (1991). Four goodness-of-fit measures are reported: Normed Fit Index (NFI), Non-Normed Fit Index (NNFI), Comparative Fit Index (CFI), and Root Mean Squared Residual (RMR) measure. NFIs, NNFIs, and CFIs that exceed .90, and an RMR that is below .05, are indicative of acceptable model fit. In all instances, other goodness-of-fit measures that were examined in our analyses, such as LISREL's goodness-of-fit index and adjusted goodness-of-fit index and Bollen's (1990) incremental fit index provided compatible results (for a detailed discussion of fit indices see Bagozzi & Yi, 1988;

Bentler, 1990; and Bollen, 1990). All of the analyses were performed separately on listwise and pairwise covariance matrices. The results were virtually the same. We therefore present the results from the pairwise matrices, which generated slightly better goodness-of-fit indices and are based on a larger portion of the original sample. Overall missing data rates amounted to 15%, and therefore 85% ($N = 693$) of the original sample size was used as the actual N in the EQS procedure.

Results

Prior to presenting overall tests of the structural models, we describe analyses relating to the conceptual meaning of the key constructs—financial strain and social support and undermining—and to the measurement model for all of the key constructs.

Relationship Between Economic Hardship and Financial Strain

Economic hardship refers to scarcity of financial resources. It is hypothesized to be an important determinant of financial strain, the subjective appraisal of the financial situation. To examine the link between hardship and its subjective appraisal, we first computed the product-moment correlation between total family income from all sources during the year that preceded the job loss and the mean of the two financial strain measures obtained from the couple. As expected, the correlation was negative ($r = -.39, p < .001$), indicating that the greater the prior level of family financial resources before layoff, the lower the subsequent experience of financial strain.¹ We also examined the relationship between concurrent financial resources and financial strain at the 6-month follow-up, a time by which nearly 50% of the job seekers had regained employment. The higher was the job seeker's monthly income, the lower was the couple's reported financial strain ($r = -.40, p < .001$). The multiple correlation with both family income and earned income as predictors was $-.49 (p < .001)$, with statistically significant contributions from both variables ($\beta_s = -.28$ and $-.34$, respectively, both $ps < .001$). These results support the hypothesis that objective economic hardship is a major contributor to perceived financial strain.

Do Social Support and Social Undermining Represent Opposite Poles of the Same Factor?

To examine the question of whether support and undermining represent opposite poles of the same factor or whether they form independent factors, we used the EQS procedure to conduct two confirmatory analyses. In these analyses we compared a one-factor model with a two-factor model. Social support and undermining subindices were loaded on separate factors at T1 and at follow-up. The indicators of the latent construct for social support were the partner's report of providing social support and the job seeker's report of receiving social support from the partner. Similarly, the construct of social undermining was indicated by the partner's report of engaging in social undermining and the job seeker's report of receiving social undermining. The correlations between the measures from the job seeker and the partner of social support and social undermining measures ranged from .51 to .53. Thus, measures based on each pair of

the subindices produced Cronbach's alpha coefficients ranging from .67 to .71.

In the one-factor model, at each time wave, the correlations between the two factors were set to -1.00 . This model is equivalent to having all the subindices at each time wave loaded on the same factor. In the second model, these correlations were freed to be estimated by the EQS procedure. Whereas the results did not fit the former model at all, $\chi^2(14, N = 693) = 673, p < .001$, those for the latter model showed very good fit, $\chi^2(12, N = 693) = 73, p < .001$. Bentler's normed, nonnormed, and comparative fit measures were, respectively, .79, .59, and .79 for the first model and .97, .96, and .98 for the second model. The difference between the models was statistically significant, $\chi^2(2, N = 693) = 600, p < .001$. In the latter analysis, the estimated correlation between social support and undermining was $-.78$ at pretest and $-.79$ at follow-up. Together, the results suggest that although support and undermining are inversely and strongly correlated, they constitute empirically distinct constructs rather than parts of the same factor.

Measurement Model of Financial Strain, Social Support and Social Undermining, Depression, and Relationship Satisfaction

In each time period, the structural model for the analyses included the latent variables specified below. The first latent variable, financial strain, was indicated by two corresponding measures based on the report of the job seeker and partner. These two indicators correlated .60 and .71 at T1 and follow-up, respectively, corresponding to Cronbach's alpha coefficients of .75 and .82 for measures that consist of the two indices.

The indicators for the social support and social undermining latent variables were, as mentioned above, the corresponding measures from the job seeker and the partner. For each partner, depressive symptomatology was indicated by two subscales. Each was formed by the mean score of half of the items comprised by the the depression scale. The last latent variable was the relationship satisfaction of the job seeker. It was indicated by two equal-sized subscales that were formed from the full relationship satisfaction scale.

Finally, to estimate the measurement model of these latent variables, we also included in the model (a) the covariances between the measurement errors of the respective indicators across the two time periods; (b) the constraints setting the factor loadings to be equal across the two time periods; and (c) for each time period separately, the correlations among all the errors for job seeker's indicators and separately for the partner's indicators. The latter specification follows Kenny and Kashy's (1992) recommendation.

The estimated measurement model showed a good fit to the

¹ Conger et al. (1990) used a more refined measure of economic hardship based on an income-needs ratio. Their economic hardship measure correlated $-.48$ with a measure of economic pressure that was very similar to our measure of financial strain.

Table 1

Factor Loadings of Indicators of Financial Strain, Social Support, Social Undermining, Depression, and Marital or Relationship Satisfaction at Pretest (T1) and at 6-Month Follow-Up (T2)

Time	Construct											
	Financial strain		Social support		Social undermining		JS Depression		PA Depression		JS Relationship satisfaction	
	JS	PA	JS	PA	JS	PA	JS ₁	JS ₂	PA ₁	PA ₂	JS ₁	JS ₂
Time 1	.80	.76	.90	.60	.88	.58	.92	.82	.89	.86	.92	.94
Time 2	.85	.85	.91	.62	.90	.61	.90	.80	.88	.85	.93	.95

Note. JS = job seeker; PA = spouse or partner of the job seeker. JS₁, JS₂, PA₁, and PA₂ are subindexes of the respective measure obtained from the job seeker or the partner.

data, $\chi^2(131, N = 693) = 393, p < .001$;² NFI = .97, NNFI = .96, CFI = .98, and RMR = .025. It was therefore used in the testing of all of the structural models discussed below. The means and standard deviations of all the measured indicators as well as their intercorrelations are provided in the Appendix. Table 1 and Table 2 present the factor loadings of the indicators and the estimated correlations among the latent factors, respectively.

The Structural Model: Direct and Mediating Effects of Financial Strain, Social Support, and Social Undermining on Depression and Relationship Satisfaction

The basic structural model that we tested addresses the following set of hypotheses:

1. Financial strain increases the depressive symptoms of the job seeker and the partner as well as reduces social support and increases social undermining. In contrast, financial strain should not have a direct effect on relationship satisfaction, because relationship satisfaction is a domain-specific facet of mental health and is less likely to be influenced by another domain-specific strain such as financial strain. This hypothesis is consistent with findings from previous research by Perucci and Targ (1988).

2. Partner's depression inhibits social support and enhances social undermining. The partner's depression affects his or her provision of social support and undermining and in turn influences the job seeker's relationship satisfaction and depression.

3. Social support and undermining each has an independent impact on the job seeker's levels of depressive symptoms and relationship satisfaction.

4. The relationship between job seekers' depression and their relationship satisfaction, and between the depressive symptoms of the job seekers and their partners, is due to the influence of common unmeasured stressors on these variables (e.g., problems with children). Therefore, these relationships will not hold at follow-up when T1 baseline levels are controlled for.

The analytic strategy. Our longitudinal data allowed us to test three main variations of the basic process model presented in the four hypotheses. The modeling of the relations among the constructs at T1 is the same in all the variations of the model.

The variations differ, however, in the way that the longitudinal effects, as well as the concurrent effects at follow-up, were modeled and tested. The three variations provide tests, respectively, for (1) longitudinal effects of baseline measures (T1 constructs) on changes in the dependent measures (outcomes) at follow-up, (2) concurrent effects of follow-up measures on changes in the dependent measures at follow-up, and (3) the longitudinal effects of changes in the predictors on changes in the dependent measures. These variations make up three models that differ only in whether certain links between constructs are modeled as directional paths or associations. Therefore, the three models have the same degrees of freedom. Next we present results regarding the relative impact of social support and undermining. We then examine the results at T1 and those produced by the three variations of the model.

Relative impact of social support and undermining. Contrary to our initial hypothesis, in all the models that were tested we found no statistically significant difference between the degree of impact of support and undermining on the respective dependent variables. For example, in the model presented in Figure 1, the impact of social support on the dependent variables was constrained to be of equal strength to that of social undermining. The constrained model provided just as good a fit to the data, $\chi^2(165, N = 693) = 432, p < .001$, as the unconstrained model, $\chi^2(159, N = 693) = 431, p < .001$. Furthermore, the unconstrained model yielded several exceedingly high correlations between estimated parameters ranging from .93 to .98 and involving parameters associated with the social support and undermining measures. These high correlations indicate potential problems due to high multicollinearity between social support and undermining constructs (Hayduk, 1987, pp. 175–176). Because the model with the constraints on equality of impact did not produce these high and problematic corre-

² Because even minute differences in a large sample tend to produce a statistically significant chi square, other measures, such as the NFI, the NNFI, and the critical *N* index, are used as indicators of goodness of fit. For example, Hayduk (1987) suggested that the chi square is instructive primarily for samples ranging from about 50 to 500 cases (p. 169). After adjusting for missing data, the size of the sample used for testing our model was 693, and therefore the statistical significance of the chi square is ignored in favor of the other fit measures.

Table 2

Estimated Correlations Among Latent Factors That Include Financial Strain, Social Support, Social Undermining, Depression, and Marital or Relationship Satisfaction at Pretest (T1) and Follow-Up (T2)

Latent factor	1	2	3	4	5	6	7	8	9	10	11	12
1. Financial Strain, T1	—											
2. Financial Strain, T2	.66	—										
3. Social Support, T1	-.10	-.08	—									
4. Social Support, T2	-.11	-.18	.81	—								
5. Social Undermining, T1	.18	.20	-.79	-.69	—							
6. Social Undermining, T2	.18	.26	-.64	-.80	.86	—						
7. JS's Depression, T1	.28	.21	-.32	-.25	.38	.26	—					
8. JS's Depression, T2	.32	.47	-.30	-.48	.36	.46	.61	—				
9. PA's Depression, T1	.35	.31	-.24	-.22	.32	.28	.20	.27	—			
10. PA's Depression, T2	.37	.43	-.13	-.25	.21	.30	.16	.33	.51	—		
11. JS's Relationship Satisfaction, T1	-.16	-.13	.79	.61	-.74	-.60	-.41	-.35	-.30	-.18	—	
12. JS's Relationship Satisfaction, T2	-.18	-.22	.59	.79	-.63	-.79	-.28	-.55	-.28	-.30	.71	—

Note. JS = job seeker; PA = spouse or partner.

lations between parameter estimations, we used these constraints in testing all of the models described below.

Thus, all of the tested models were based on the same measurement model and the paths of influence described above. In addition they included the covariances of the disturbance estimate of support and undermining at both time periods and those between depression and relationship satisfaction, and between the depression of the job seeker and the partner at T1 only. Figure 1 displays the best-fitting model that was constructed with our hypotheses and reports the standardized path coefficients.

Concurrent effects at T1. In all of the tested models, the concurrent effects at T1 and the stability effects—that is, the effects of T1 constructs on their respective levels at follow-up—were modeled in the same way as shown in Figure 1. The results of the concurrent effects at T1 were virtually the same in all the models, including that in Figure 1. With the exception of the absence of the direct effect of financial strain on social support and on social undermining, the findings support the hypothesized process that begins with a direct adverse effect of financial strain on the job seeker and partner's depression (β s = .23 and .39, respectively). The partner's depression contributes to the partner's withdrawal of support and increasing social undermining (β s = -.26 and .31, respectively). These effects on support and undermining, in turn, independently increase the job seeker's depression (β s = -.18 and .15, respectively, for support and undermining) and reduce the job seeker's relationship satisfaction (β s = .45 and -.38, respectively, for support and undermining).

Longitudinal effects of baseline measures (Model 1). The testing of this model focuses strictly on the longitudinal effects. It examines the effects of baseline levels of the independent variables (e.g., undermining) on changes in the dependent variables (e.g., depression) at follow-up. This model includes (a) concurrent effects at T1; (b) stabilities, the effects of the baseline constructs on their respective level at follow-up; and (c) the lagged (longitudinal) effects of every independent construct at T1 on its respective dependent variables at follow-up. The concurrent effects at follow-up that corresponded to those at T1 were modeled as associations (i.e., as covariances between the respective

disturbances of the variables). The test of this model produced a good fit, $\chi^2(165, N = 693) = 466, p < .001, NFI = .96, NNFI = .96, CFI = .97,$ and $RMR = .035.$

In this model, T1 financial strain was a significant predictor of both the job seeker's and the partner's changes in depression at follow-up (β s = .14 and .24, respectively). In addition, T1 social support and undermining were significant predictors of the job seeker's changes at follow-up in depression (β s = -.08 and .07 for support and undermining, respectively) and of relationship satisfaction (β s = .15 and -.13 for support and undermining, respectively). However, partner's depression at T1 failed to predict social support or social undermining at follow-up. Although these results are compatible with the T1 concurrent effects, they are consistently weaker. These weaker effects were expected because of changes in employment and financial strain during the 6-month time lag between measurements. During that period, 62% of the job seekers became reemployed, working 20 hr per week or more. By follow-up, 57% of the job seekers reported working as many hours as they wanted or needed to. Therefore, the concurrent effects at follow-up should provide a more accurate picture of the process.

Concurrent effects of follow-up measures (Model 2). We proceed to examine the results of the second model that focuses on the effects of the concurrent (follow-up) levels of the independent variables (e.g., undermining) on changes in the dependent variables (e.g., depression). The longitudinal effects of the previous model were replaced by covariances between the respective disturbances of the variables. Again the test of this model produced a good fit, $\chi^2(165, N = 693) = 451, p < .001; NFI = .96, NNFI = .96, CFI = .98,$ and $RMR = .031.$ Whereas the fit of this model was a significantly better fit than that provided by the previous longitudinal model, it was found to be significantly worse than the fit of the third model, described next. Moreover, both the second and the third models produced nearly the same path coefficients, with somewhat larger ones in some instances in the third model.

Longitudinal effects of changes (Model 3). The third model, shown in Figure 1, is designed to also capture the effects of changes in the independent variables on changes in the dependent variables in addition to the concurrent effects. The

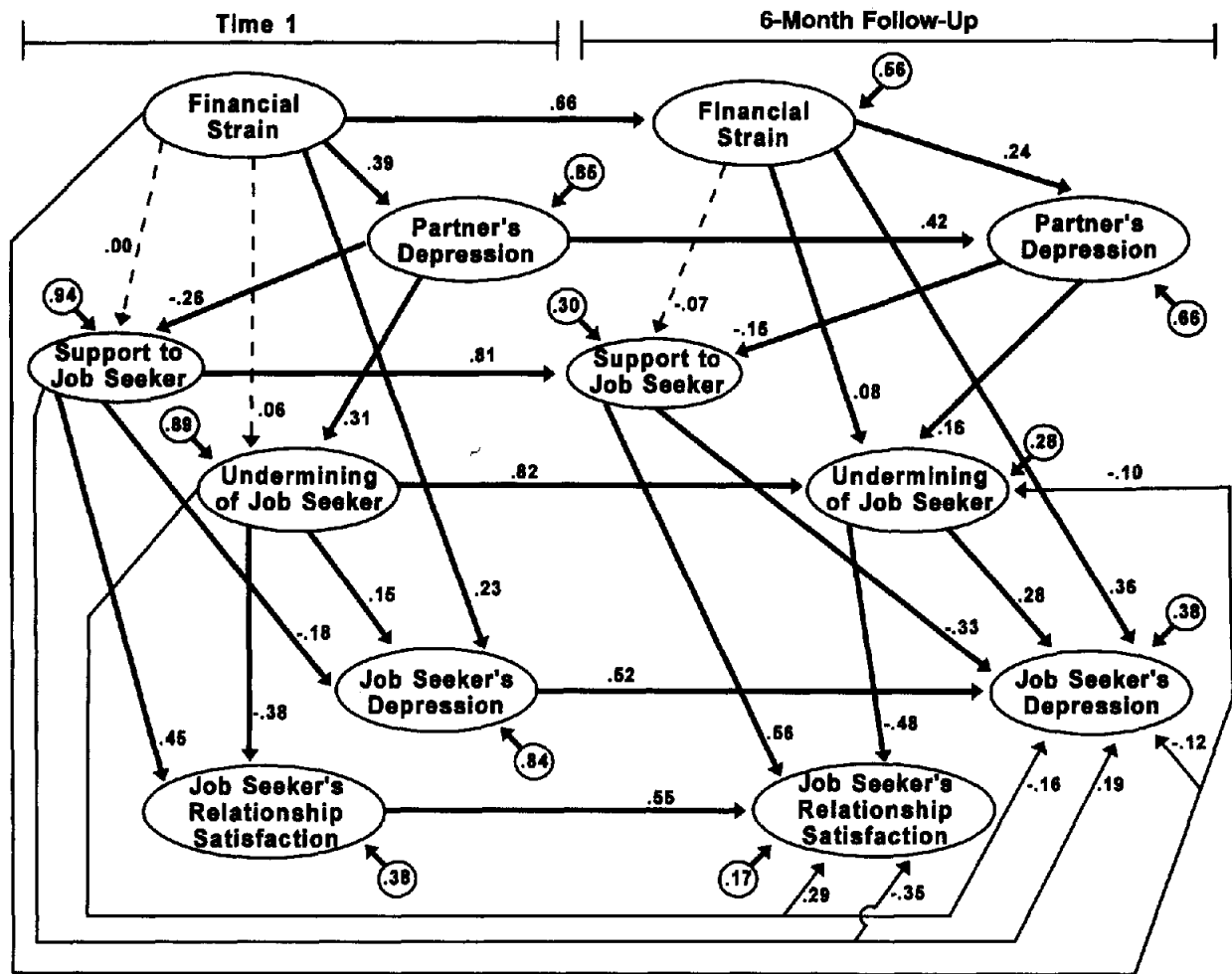


Figure 1. Structural equation model of the effects of financial strain, social support, and social undermining on depression and relationship satisfaction: $\chi^2(165, N = 693) = 432, p < .001, NFI = .97, NNFI = .97, CFI = .98,$ and $RMR = .03$. Solid and broken lines represent, respectively, statistically significant ($p < .05$) and non-significant paths that were included in the model. Thin solid lines at the bottom of the figure represent paths from Time 1 (T1) to follow-up. Numbers in small circles are residual variances. Not shown are (a) three longitudinal paths: two from T1 partner's depression to social support and undermining at follow-up ($\beta_s = .07, ns,$ and $-.10, p < .05$) and one from financial strain to partner's depression ($\beta = .08, ns$), (b) the correlations between the disturbances of social support and undermining at T1 and at follow-up ($r_s = -.79$ and $-.80, p < .001$), (c) correlations between job seeker's depression and relationship satisfaction at T1 ($r = -.22, p < .001$), and (d) correlations between partners' depression at T1 ($r = -.01, ns$).

goodness of fit of this model was significantly better than that of previous models, $\chi^2(165, N = 693) = 432, p < .001; NFI = .97, NNFI = .97, CFI = .98,$ and $RMR = .029$. In this model, all the longitudinal effects of Model 1, which have been replaced by associations in Model 2, were restored as directional paths of influence. Such changes were likely because more than half of the job seekers regained their employment and accordingly experienced change in their economic conditions.

To capture the effects of these changes, both T1 baseline levels and their respective levels at follow-up were modeled as predictors of the dependent variables at follow-up. In this model, the beta coefficients of the concurrent paths at follow-up actually represent correlations between residualized scores of the inde-

pendent and dependent variables and could be interpreted as correlations between changes in the independent variables and changes in the dependent variables. The direction of influence between these correlated changes is therefore open to interpretation. For example, although we hypothesize that financial strain increases depressive symptoms, depressive symptoms may magnify the perception of financial hardship and strain. However, for two important reasons, we conclude that the direction of influence goes from financial strain to depressive symptoms. First, as already shown in testing the longitudinal effects in Model 1, the baseline levels of our independent variables were statistically significant predictors of changes in the dependent variables. Second, as later analyses of alternative

models that reverse the causal direction of our independent and dependent variables show, the baseline levels of our dependent variables (e.g., job seeker's depression) are not predictive of changes in the independent variables (e.g., financial strain or undermining). These two sets of results make it plausible that the direction of influence is from the changes in our stated independent variables to the respective changes in the dependent variables.

In regard to the longitudinal paths, they could be interpreted as effects of baseline levels that hold after controlling for the indirect effects of baseline that operate through the measures at follow-up. We note that such path coefficients usually display a counterintuitive sign (e.g., see Eaton, 1978; Turner & Avison, 1992). For example, T1 financial strain appears to predict reduction in depression at follow-up ($\beta = -.12$). By themselves, these longitudinal paths are not considered theoretically significant. However, Kessler and Greenberg (1981, pp. 77-80) provided a clear interpretation to the magnitude of these longitudinal paths under certain assumptions. These assumptions make it possible to clarify the meaning of the longitudinal as well as the concurrent paths at follow-up.

Kessler and Greenberg (1981) pointed out that the effects of changes are not independent of effects of baseline levels. Their mathematical treatment of the issue demonstrated that the size of the concurrent coefficients at follow-up in a model, such as ours, with longitudinal paths, actually represents the combined effects of two sources of influence: one is the net effect of the change in the independent variable on change in the dependent variable, and the other is the net effect of the concurrent level of the independent variable at follow-up on the dependent variable at follow-up. Kessler and Greenberg further demonstrated that it is possible to separate the two sources of influence when a plausible assumption can be made. That assumption is that the baseline independent variable has no *direct* effect on the follow-up dependent measure, that is, when the effect of change is independent of initial level. There is no clear way to test this assumption, but if we make this assumption, the net effect of change in the independent variable on change in the dependent variable is indicated by the size of the beta coefficient of the longitudinal path, with a reverse sign (e.g., in Figure 1, reversing the sign of $-.12$ for the path from financial strain at T1 to job seeker's depression at follow-up to $.12$). One can then compute the net effect of the concurrent influence by subtracting the net effect of change from the coefficient of the concurrent path from financial strain at follow-up to job seeker's depression, which includes both sources of influence (i.e., our example in Figure 1, $.36 - .12 = .24$). In the absence of the above-mentioned assumption, there is no simple way to disentangle the total magnitude of the concurrent follow-up path into a net effect of change and a net effect of the concurrent influence.

Effects of financial strain on depression. Figure 1 shows that the major contributor to each construct at 6-month follow-up was its preceding baseline level. In addition, at follow-up, virtually the same pattern of results appears as at T1 with the addition of a significant direct effect of financial strain on social undermining. Overall, all of the coefficients of the paths to the job seeker's depression and relationship satisfaction were larger at follow-up than at T1. As suggested by Hypothesis 1, total changes and concurrent effects of financial strain were predic-

tive of changes in depression levels of the job seeker and the partner (β s = $.36$ and $.24$, respectively) as well as of a change in social undermining ($\beta = .08$). The effect on social support was not statistically significant. Additional tests revealed that at neither T1 nor follow-up was financial strain predictive of relationship satisfaction or changes in this construct.

Partner's depression, social support and undermining, and relationship satisfaction. To a lesser degree, as suggested in Hypothesis 2, total changes and concurrent effects of partner's depression were predictive of changes in social support and undermining (β s = $-.15$ and $.16$, respectively), with no indication of other direct effects from partner's depression on job seeker's depression or relationship satisfaction. As suggested by Hypothesis 3, total changes and concurrent effects of social support and undermining were strong predictors of changes in job seeker's relationship satisfaction (β s = $.56$ and $-.48$ for support and undermining, respectively) and depression (β s = $-.33$ and $.28$ for support and undermining, respectively).

According to Hypothesis 4, at follow-up there should be no correlation between job seeker's and the partner's depression, or between job seeker's depression and his or her relationship satisfaction, because the common stressors that influence these variables are controlled for by the inclusion of the baseline measures. When a model that included these correlations at follow-up was tested it produced negligible correlations of $.001$ and $.02$ and did not improve the fit over the model shown in Figure 1.

Effect of financial strain on social support and undermining. Contrary to Hypothesis 1, financial strain did not have a direct effect on social undermining at T1 or on social support at both time periods. We hypothesize that such direct effects have appeared in other research, for example, in Conger et al.'s (1990) study, because the mediating construct—partner's depression—was not included in the model. To test whether such a direct effect will appear in our data in the absence of the mediation path, we tested a model with these paths replaced by covariances between the respective disturbances of these constructs. The model produced an equally good fit to the data as the one displayed in Figure 1, $\chi^2(165, N = 693) = 432$. However, unlike in the earlier model, at T1 financial strain had a statistically significant direct effect on social support, particularly on social undermining ($\beta = -.09, p < .06$, and $\beta = .18, p < .01$). At follow-up, the effects on both constructs were statistically significant (β s = $-.11$ and $.13$, both p s $< .01$). This suggests that the direct effects of financial strain on support and undermining are manifested when the mediator construct, that is, partner's depression, is not included in the model as a mediator.

Gender Effects

To test whether the model displayed in Figure 1 provides an equally good fit to the data obtained from male versus female job seekers, we applied the structural modeling for the two separate subgroups of men and women in the same estimation procedure with no constraints between the subgroups. This analysis attempted to fit the covariance matrices of the two subgroups simultaneously to the same model, and it produced a good fit to the data, $\chi^2(332, N = 693) = 674, p < .001$; NFI = $.95$, NNFI = $.95$, and CFI = $.97$.

To provide a more stringent and specific test of whether the impact of social support and undermining on depression and relationship satisfaction is different for men and women, the same analyses were repeated with constraints between these subgroups. The constraints consisted of setting the estimated factor loadings, factor variances, social support and undermining factor covariance at T1 and their residuals at follow-up, and path coefficients of each respective subgroup to be equal to their counterpart in the other subgroup (Bentler, 1989, p. 151). For the two subgroups, the analysis produced essentially the same goodness of fit values, $\chi^2(369, N = 693) = 713$; NFI = .94, NNFI = .96, and CFI = .97. Thus, the goodness-of-fit measures of both the unconstrained and the constrained models were acceptable, and the differences in chi square between them were not statistically significant, $\chi^2(37) = 39, n.s.$

An Alternative Model: Do Job Seekers' Depression and Relationship Satisfaction Influence the Social Support and Social Undermining They Receive?

Although the analyses revealed that our model provides an excellent fit to the data, the analyses do not rule out the possibility that still other models may provide just as good a fit or a better one (MacCallum, Wegener, Uchino, & Fabrigar, 1993). We were able to identify and test two plausible alternative models. The first alternative model is based on the plausible hypothesis that it is the job seeker's depression and relationship dissatisfaction that influence the social support and social undermining provided by the partner. Earlier we mentioned the likely effects of partners' depression on their inclination to be nonsupportive, hostile, and socially undermining. In a similar vein, the depressed and dissatisfied job seekers' nonsupportive and hostile behaviors are more likely to induce negative affect and hostility in their partners (Coyne, 1976a, 1976b; Coyne et al., 1987; Ruscher & Gotlib, 1988). Such affect may, in turn, lead partners to withdraw social support and increase their undermining behaviors.

To test the plausibility of a model based on this hypothesis, we modified our best fitting model in Figure 1 by reversing the direction of the respective paths of influence from social support and undermining to depression and relationship satisfaction. Job seeker's depression and relationship satisfaction were modeled to have direct effects on social support and undermining. We then tested two variations of the model. The first variation focused on testing the longitudinal effects of baseline levels on changes in the dependent variables. The second variation focused on a complete change model (i.e., how changes in independent variables affect changes in the dependent variables, such as in Figure 1).

The results of testing these two variations provided substantially poorer fit indices than their earlier counterparts. The results for the longitudinal effects included $\chi^2(159, N = 693) = 532$ and RMR = .069. None of the longitudinal paths from depression and relationship satisfaction at T1 were significant predictors of social support and social undermining at follow-up. The testing of the full-change variant of the model resulted in $\chi^2(159, N = 693) = 527$ and RMR = .07, providing worse fit than the counterpart earlier model, $\chi^2(165, N = 693) = 432$, and RMR = .029. A more extensive form of the above alterna-

tive model would also include a hypothesized influence of job seeker's and partner's depression on perceived financial strain. A model that included this hypothesis produced even worse fit, $\chi^2(165, N = 693) = 565$, and RMR = .07.

Discussion and Conclusions

Our findings demonstrate the adverse effects that financial strain can have on the depressive symptoms and relationships in couples who are coping with job loss. The results point out particular paths by which these effects tie the job seeker and partner together and that these effects are no different for couples in which the job seeker is a woman than for couples in which the job seeker is a man.

The structural analyses suggest that financial strain increases symptoms of depression in the partner as well as in the job seeker. Consistent with the results of other studies on the impact of depression on social support (e.g., Coyne et al., 1987), these depressive symptoms dampen the partner's ability to provide support to the job seeker (e.g., express care and concern, provide help) and increase the partner's undermining behaviors (e.g., criticize, insult). This combination of decreased support and increased undermining has two separate effects on the job seeker: It increases depressive symptoms and reduces satisfaction with the relationship. The effect on depressive symptoms is above the already elevated level that is due to the presence of financial strain.

In addition, the results of the structural analyses suggest that the often-reported direct relationships between depression of both partners and between depression and marital dissatisfaction may be spurious. These relationships are often viewed as evidence of a direct stress crossover between partners (e.g., Westman & Etzion, 1995) and may appear because of the effects of common stressors, such as economic hardship and financial strain, or because they are largely determined by the socially supportive and undermining transactions between partners that, in turn, are affected by the common stressors.

The results of this study both replicate and extend the findings of earlier studies by Conger and his associates (Conger et al., 1990, 1992, 1994) in a number of ways. First, our analyses replicate the effects of financial strain (or, economic pressure) on partners' depression (Conger et al., 1992, 1994) and the effects of partners' depression on negative interaction processes or marital conflict (Conger et al., 1992). Second, the findings are based on the convergent validity of three key constructs—financial strain, social support, and social undermining—assessed from the perspective of both partners. Third, based on longitudinal analyses, the results demonstrate the influence of predicted and concurrent levels of independent constructs on changes in outcome measures collected at follow-up as well as total effects that include effects of changes in the independent constructs on the changes in outcomes. One of the advantages of longitudinal analyses is that analyses of the data from subsequent waves are controlled for the effects of earlier baseline measures. The reliance of our analyses on data from the two partners simultaneously, and the longitudinal analyses that control for baseline measures, provide a different picture than is often depicted by results from cross-sectional analyses that are based on self-report measures contaminated by such common factors

as negative affectivity (Burke, Brief, & George, 1993). For example, the association between depression and marital dissatisfaction in T1 data disappears in the follow-up data because the baseline levels of these constructs are controlled.

Fourth, our analyses were applied to a model that considered both depression and marital or relationship satisfaction simultaneously and therefore allowed us to examine the nature of the relationship between them. Finally, our study extends the generality of the process model examined by Conger et al. (1990) from a rural sample to an urban sample. Conger and his associates studied a rural sample with predominantly employed male breadwinners and wives who were housewives. In contrast, our study used a sample that was drawn from a large metropolitan and suburban area and included a heterogeneous group of recently unemployed respondents. The sample in our study also extended the replication to women, who before losing their jobs shared the burden of working outside the home for pay with their male counterparts.

Overall, the present results support and extend findings reported in earlier investigations by Conger et al. (1990) and by Vinokur and van Ryn (1993). There are, however, differences in the present findings that shed more light on these processes. For example, Conger et al. (1990; Conger, Lorenz, Elder, Simons, & Ge, 1993) found that economic strain had a substantially larger impact on the husband's than on the wife's hostility and warm interactions. Having greater responsibility as breadwinners appeared to predispose the men, more than the women, to experience financial problems as a more prominent stressor and consequently to experience greater strain and hostility. This interpretation is consistent with the finding that the wives in Conger et al.'s (1993) study were more strongly influenced by exposure to negative events within the family, which most likely is more central to their role identity and realm of responsibility than to those of the traditional men, who see their primary responsibility as being breadwinners. In contrast to the findings from the rural sample, our analyses did not reveal a significant gender effect. Similarly, a number of recent comparative studies of men and women in the workforce show little if any gender difference in relationships between job stressful experiences, or marital role quality, and psychological distress and mental health (R. C. Barnett, Marshall, Raudenbush, & Brennan, 1993; R. C. Barnett, Brennan, Raudenbush, & Marshall, 1994; Frone, Russell, & Cooper, 1992).

In both the present study and an earlier one by Vinokur and van Ryn (1993), social support and social undermining had independent effects on depressive symptoms. The present study also found that social support and social undermining had independent effects on relationship satisfaction. However, the analyses fell short of providing a complete replicable pattern of results to Vinokur and van Ryn's study. Whereas Vinokur and van Ryn's study, as well as others (e.g., Gottman, 1979; Rook, 1984), found that social undermining had a significantly larger impact than social support on mental health, the results of the present study showed that the magnitude of the impact of the two constructs was not statistically different. The inconsistency in these findings may be due to the very high multicollinearity between the social support and undermining constructs (i.e., $-.80$) that produced in this study unstable estimates of the relative size of the effects of support and undermining. As men-

tioned earlier, this multicollinearity may have resulted in extremely high correlations among parameter estimates. To avoid the undesirable effects of multicollinearity in the current data, we had to constrain the magnitude of social support and undermining to be equal. The constraint to equality precluded a comparison of the relative strength of influence of social support and undermining on the other variables.

In addition to the need to reexamine the relative impact of social support and undermining, future studies need to expand the scope of the model to include the mental health effects of social support and undermining on the partner as well as on the job seeker. If the greater hostility shown by husbands in Conger et al.'s (1993) study is due to the primary breadwinner role of the husbands, rather than to gender, then the effects of support and undermining of the job seeker on the partner's depression and mental health may be even greater than those of the partner's effect on the job seeker. Fully complementary data from both partners would allow expansion of the model and make it possible to untangle the effects of breadwinner role from effects of gender. Such expansion is important also because of research dating back to the Great Depression that showed that job loss can affect the whole family (e.g., Atkinson, Liem, & Liem, 1986; Jahoda, Lazarsfeld, & Zeisel, 1972).

Another promising direction for expanding the model examined here could be achieved by the inclusion of a second-order quality-of-relationship factor. Indicators of such a factor may include relationship satisfaction, happiness, and similar measures that reflect relationship quality. It is possible that such a second-order factor is also being affected by the partner's depression and that it in turn has a direct effect on the job seeker's depression independent of social support and undermining.

The findings of the process model investigated in this study offer important implications for the design of preventive interventions for unemployed job seekers and their partners (Howe, Caplan, Foster, Lockshin, & McGrath, 1995). To prevent or alleviate depression, preventive interventions should focus on addressing two critical issues: the financial strain experienced by the unemployed job seekers and the decrease in positive and increase in negative interaction processes that are exacerbated by financial strain. Addressing financial strain can be accomplished indirectly by enhancing coping resources such as job search skills, job search self-efficacy, and motivation to find a new job. These coping resources have been shown to increase the intensity of job search behavior (van Ryn & Vinokur, 1992) and consequently the odds of reemployment in better paying jobs (Caplan et al., 1989; Vinokur, van Ryn, et al., 1991; Vinokur et al., 1995). Financial strain might also be addressed more directly and immediately by enhancing the couples' skill and self-efficacy in dealing with financial matters through financial planning. As a first step, helping couples develop, agree on, and adopt a plan for coping with financial difficulties would include setting priorities for allocating resources to meet personal and family needs. Developing strategies in financial management could give couples the skills to alter their financial situation as well as their subjective sense that their economic future is controllable. This would contribute to severing the link between financial strain and social undermining, thereby further reducing both depressive symptoms and marital or relationship dissatisfaction. In the process, couples could also be introduced to

ways of avoiding the reciprocal social undermining cycles that have strong effects on marital distress and depression (Coyne & Downey, 1991; Gottman, 1979).

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Appendix

Product-Moment Correlations Among All Measured Variables (Indicators) That Were Used in the Structural Model and Their Means and Standard Deviations

Measured variable	1	2	3	4	5	6	7	8	9	10	11	12
1. JS's financial strain	—											
2. PA's financial strain	.599	—										
3. PA's depression (a) ^a	.235	.386	—									
4. PA's depression (b) ^a	.200	.431	.767	—								
5. Support to JS, JS report	-.111	-.066	-.195	-.190	—							
6. Support to JS, PA report	-.012	-.017	-.209	-.205	.553	—						
7. Undermining of JS, JS report	.177	.111	.253	.237	-.712	-.418	—					
8. Undermining of JS, PA report	.117	.151	.393	.358	-.404	-.487	.508	—				
9. JS's depression (a)	.340	.145	.121	.133	-.318	-.113	.338	.194	—			
10. JS's depression (b)	.348	.140	.149	.198	-.273	-.097	.271	.189	.734	—		
11. JS's relationship satisfaction (a)	-.161	-.090	-.253	-.240	.687	.421	-.716	-.400	-.345	-.291	—	
12. JS's relationship satisfaction (b)	-.128	-.074	-.242	-.211	.703	.451	-.684	-.394	-.362	-.297	.865	—
13. JS's financial strain	.498	.372	.181	.204	-.098	-.009	.174	.079	.180	.231	-.154	-.137
14. PA's financial strain	.473	.562	.300	.359	-.032	-.020	.140	.107	.117	.152	-.083	-.056
15. PA's depression (a)	.227	.355	.556	.493	-.059	-.087	.130	.260	.103	.104	-.107	-.096
16. PA's depression (b)	.195	.294	.445	.525	-.077	-.102	.118	.237	.071	.120	-.112	-.115
17. Support to JS, JS report	-.086	-.088	-.153	-.184	.689	.434	-.573	-.336	-.199	-.217	.539	.536
18. Support to JS, PA report	-.005	-.045	-.192	-.175	.412	.581	-.342	-.372	-.053	-.076	.300	.318
19. Undermining of JS, JS report	.142	.109	.188	.205	-.522	-.327	.669	.437	.211	.202	-.520	-.522
20. Undermining of JS, PA report	.132	.113	.276	.291	-.303	-.359	.444	.629	.173	.168	-.318	-.305
21. JS's depression (a)	.275	.117	.139	.183	-.285	-.095	.336	.190	.554	.503	-.320	-.325
22. JS's depression (b)	.294	.134	.132	.201	-.241	-.068	.232	.120	.432	.565	-.256	-.260
23. JS's relationship satisfaction (a)	-.144	-.115	-.207	-.222	.483	.330	-.530	-.331	-.231	-.210	.653	.631
24. JS's relationship satisfaction (b)	-.141	-.113	-.220	-.213	.522	.340	-.539	-.356	-.245	-.244	.643	.654
<i>M</i>	3.089	2.578	1.676	1.712	3.811	4.066	1.779	1.798	1.974	1.951	5.041	4.777
<i>SD</i>	1.074	1.089	.744	.752	.863	.636	.756	.572	.816	.808	.831	.988

Measured variable (cont'd)	13	14	15	16	17	18	19	20	21	22	23	24
13. JS's financial strain	—											
14. PA's financial strain	.712	—										
15. PA's depression (a)	.288	.445	—									
16. PA's depression (b)	.275	.464	.778	—								
17. Support to JS, JS report	-.169	-.126	-.161	-.184	—							
18. Support to JS, PA report	-.062	-.065	-.240	-.239	.530	—						
19. Undermining of JS, JS report	.201	.185	.231	.204	-.753	-.436	—					
20. Undermining of JS, PA report	.146	.176	.404	.365	-.401	-.482	.530	—				
21. JS's depression (a)	.417	.308	.219	.244	-.388	-.212	.424	.274	—			
22. JS's depression (b)	.436	.294	.176	.246	-.368	-.175	.348	.216	.744	—		
23. JS's relationship satisfaction (a)	-.224	-.162	-.227	-.213	.707	.431	-.728	-.424	-.413	-.354	—	
24. JS's relationship satisfaction (b)	-.210	-.145	-.225	-.209	.747	.444	-.751	-.435	-.444	-.398	.880	—
<i>M</i>	2.398	2.283	1.654	1.671	3.768	4.022	1.761	1.763	1.722	1.748	5.022	4.737
<i>SD</i>	1.138	1.109	.720	.718	.916	.664	.830	.571	.738	.776	.901	1.064

Note. Time 1 measures are indicated by Rows 1–12 and Columns 1–12; the 6-month follow-up measures are indicated by Rows 13–24 and Columns 13–24. JS = job seeker; PA = spouse or partner.

^a (a) and (b) indicate subindices of the respective construct. Each subindex is based on half of the items that were used to measure the construct.

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