Predicting Negative Spousal Attitudes Toward Depressed Persons: A Test of Coyne's Interpersonal Model

Nili R. Benazon
Wayne State University

The utility of Coyne's (1976a) interactional model in predicting negative spousal attitudes toward depressed patients was examined. Eighty-nine couples with at least 1 member in treatment for depression were selected on the basis of semistructured diagnostic interviews. Overall, spouses living with a depressed patient reported significantly more distress than population norms. Consistent with prediction, patients' reassurance seeking and spouses' mood contributed to negative spousal attitudes. Additional analyses demonstrated that these effects persisted even after controlling for spouse marital adjustment, suggesting that negative spousal attitudes were more than a simple reflection of marital maladjustment.

Interpersonal theories of depression emphasize that the complaints of depressed persons are not simply a product of cognitive distortion but arise in the context of conflictual and unsupportive relationships. Coyne (1976b, 1999) delineated an interactional theory of depression and posited that a negative response by others plays a key role in the maintenance if not the cause of depression. Their complaints and reassurance seeking are distressing (see also Joiner, 1994; Joiner, Alfano, & Metalsky, 1992, 1993) and make others feel responsible for their well-being. At the same time, they succeed in eliciting guilt and inhibiting any direct negative response (see also Biglan et al., 1985; Hops et al., 1987). In an effort to reduce their aversive behavior, others may provide what seemingly is being asked of them while also leaking their impatience, hostility, and rejection (Coyne, 1976a). Depressed persons are thus able to validate their sense of insecurity, leading to further expression of distress. In this sense, others may respond in ways that unwittingly perpetuate depressed persons' problems.

Coyne (1976a) first tested his interactional model with clinically depressed persons who interacted briefly with strangers, yet the findings were discussed in terms of their implications for enduring relationships. In recent years we have seen a surge of studies reexamining Coyne's theory in the context of ongoing relationships (e.g., Joiner, 1994; Joiner et al., 1992; Katz, Beach, & Joiner, 1998). Taken together, these studies are supportive of the inter-

personal model in the context of roommate and dating relationships in which there are repeated contacts between the depressed person and another individual.

Yet it is important to note that the interpersonal model has received only limited testing in the context of more enduring relationships, namely marriage. One possible paradox is that processes postulated by Coyne may already have taken their toll on the relationship and may no longer be observable. After years of marriage and numerous episodes of depression, the depressed person may abandon any hope of obtaining the reassurance originally sought from the spouse, and the experience of repeated rejections may be crystallized in a negative self-view that no longer needs verification from the spouse. Coyne's (1976b) formulation was silent on such longer term effects or even the temporal parameters of the interpersonal processes that were being described.

Quite separate from tests of Coyne's theory, a large literature on the marital and family relationships of depressed persons has consistently demonstrated that these relationships are characterized by negativity and conflict (see Beach, Whisman, & O'Leary, 1994, for review). In particular, the expressed emotion (EE) literature has emerged showing that the spouses of depressed persons are negative in their attitudes toward patients (Hooley, 1986; Vaughn & Leff, 1976b). Such display of negative attitudes has been found to be highly prevalent and predictive of relapse among recovering depressed patients (Hooley, Orley, & Teasdale, 1986; Vaughn & Leff, 1976a). However, as Hooley and Licht (1997) pointed out, "The factors that underlie the development and maintenance of high EE, and the EE—relapse link, are still little understood" (p. 298). Thus, although it has been reported in the literature that the spouses of depressed persons have negative attitudes toward patients, it remains unclear what is associated with this negativity and whether or not the interpersonal processes originally identified by Coyne are relevant. Moreover, in turning to the study of marriage, the additional question arises as to whether spousal attitudes are best construed as a facet of marital maladjustment. One possibility is that negative spousal attitudes can be more parsimoniously understood as an aspect of a dysfunctional marital relationship. There has been some suggestion in the literature that marital distress rather than depression per se may be

responsible for the dysfunctional interaction patterns frequently observed in depressed couples (Schmaling & Jacobson, 1990).

The present study was designed to test Coyne's interactional model with depressed patients and their spouses. The model was tested in a conventional manner against the null hypothesis of no relations between the predictors specified by the theory and two measures of spousal attitudes: spouse EE and appraisal of the patient. It was hypothesized that the two dependent variables would be moderately correlated and that both dependent variables would be predicted by patient reassurance seeking and spouse depressed mood. Persistence of the relation between the theoretical variables of interest and spousal attitudes, even after controlling for spouse marital adjustment, would represent particularly strong support for the interpersonal model.

Participants consisted of patients in treatment for depression. Some were in a current episode of major depressive disorder (MDD) and receiving acute-phase treatment, whereas others were receiving maintenance treatment and no longer met criteria for current MDD. There has been a shift in the treatment of depression, with greater emphasis on unipolar major depressive disorder as primarily a chronic, recurrent disorder rather than a single-episode disorder (Judd, 1997). Given the high risk of recently recovered depressed patients for a new episode, many patients are now remaining in maintenance treatment beyond the acute episode (Depression Guideline Panel, 1993). Furthermore, previous research indicated that the interpersonal difficulties of depressed persons are not confined to the acute episode (Paykel et al., 1995; Weissman & Paykel, 1974). It was, therefore, decided to test and extend Coyne's interpersonal model in a mixed population of patients in acute and maintenance treatment for depression, in which depressed mood among these patients was treated as a continuous variable.

Method

Participants and Procedure

Participants were drawn from two outpatient clinics—Clarke Institute of Psychiatry and University of Michigan Medical Center—that specialize in the treatment of mood disorders. Both patients and their spouses received diagnostic interviews. In 7 of the 90 couples (7%), both partners were depressed. It was arbitrarily decided that the person in treatment at the recruitment setting would be designated the "patient." Patients either met criteria for current MDD ($n = 43$) or dysthymic disorder ($n = 16$) or remained in treatment while meeting criteria for past MDD ($n = 30$). On average, patients reported having had seven major depressive episodes. Approximately 15% of patients declined participation for reasons related to the spouse. Persons who met criteria for bipolar I or bipolar II disorders were excluded. On average, patients were 43 years old, Caucasian (99%), married (94%), college educated (58%), and employed (70%). Spouses were 44 years of age, Caucasian (98%), college educated (63%), and employed (85%). Couples had been together for 16 years. The average level of family income in this sample was $57,000. Of the 109 couples who were mailed questionnaire packages, 89 returned questionnaire packages that were complete (a total response rate of 82%).

Measures

Structured Clinical Interview for DSM-IV. The version of the Structured Clinical Interview for *DSM-IV* (SCID; First, Spitzer, Gibbon, & Williams, 1995) used in this study assesses current (defined as the preced-

ing month) and lifetime psychiatric status for major Axis I disorders in accordance with *DSM-IV* criteria. Patients and spouses were administered the Mood Disorders module only. The interviewer was a trained, experienced, master's-level clinician. Concurrent validity of the SCID-based diagnoses was established in comparison with diagnoses provided by the three referring psychiatrists. The coefficient ks ranged from 0.79 to 0.90 between the SCID-based diagnoses from the investigator and the diagnoses provided by particular psychiatrists, with an overall k of 0.83 ($n = 50$).

Multiple Affect Adjective Check List-Revised (MAACL-R; Zuckerman & Lubin, 1985). The MAACL-R consists of 132 affective adjectives and was developed to provide a brief, norm-referenced measure of self-reported mood. Both patients and spouses completed the Depression subscale of the trait version. Higher scores correspond to greater levels of depression. MAACL-R scores are typically expressed as T scores; a score of 80 is considered to be within the clinical range.

Depressive Interpersonal Relationships Inventory—Reassurance-Seeking Subscale (DIRI; Metalsky et al., 1991). The DIRI is a self-report measure of reassurance seeking, defined as a tendency to seek reassurance excessively from others as to whether they "truly" care. The scale was rendered specific to the seeking of reassurance from the respondent's intimate rather than as an assessment of a more general trait. The reassurance-seeking scale includes four items, each rated on a 7-point scale ranging from 1 to 7, with higher scores corresponding to increasing reassurance seeking. Joiner et al. (1992) reported a coefficient α of .88 for the DIRI-RS, and the criterion and construct validity of the measure has been supported by previous work (Joiner et al., 1992; Joiner & Metalsky, 1995). The DIRI-RS was completed by patients only.

Level of Expressed Emotion (LEE; Cole & Kazarian, 1988). The 60-item LEE was developed to reflect the four behavioral and attitudinal correlates of the EE construct (Vaughn & Leff, 1981): intrusiveness, emotional response, attitude toward illness, and tolerance and expectations. Scores can range from 0 to 60; higher scores indicate greater levels of EE. A score of 9 on the LEE has been used for high–low splitting of LEE scores. The LEE has been found to have high levels of internal consistency (Cole & Kazarian, 1988). The concurrent validity (Kazarian, Malla, Cole, & Baker, 1990; Kazarian, Mazmanian, McDermott, & Olinger, 1991) and the predictive validity (Kazarian & Cole, 1993) have been supported in a number of studies. The LEE was completed by spouses only.

Principal Index of Partner Appraisal (PPA; Pelham & Swann, 1989). The PPA is a 10-item questionnaire that measures 10 self-views central to self-worth (e.g., intellectual capability, physical attractiveness, leadership ability, and emotional stability). Spouses rated patients on each of the 10 attributes relative to other people of the same age and gender as their spouse on graduated-interval scales. The sum of their ratings of the patient on these 10 attributes range from 10 to 100; higher scores indicate a more positive appraisal of the patient by the spouse.

Dyadic Adjustment Scale (DAS; Spanier, 1976). The DAS contains 32 items and is multidimensional in that it includes four subscales (Dyadic Adjustment, Dyadic Cohesion, Dyadic Consensus, and Affectional Expression). The psychometric properties of the DAS have proven adequate in both clinical (e.g., Crane, Allgood, Larson, & Griffin, 1990) and nonclinical samples (e.g., Sabatelli, 1988).

Results

Exploration of the Validity of the In-Episode/ Out-of-Episode Distinction

To establish the validity of the distinction between the in- and out-of-episode patients, t tests were conducted with patient depressed mood as the dependent variable. Results revealed that in-episode patients reported significantly more distress than out-of-episode patients, $t(87) = 1.96$, $p < .05$, but there was considerable overlap between the two groups. Moreover, a t test indicated

that out-of-episode patients were more distressed than the population norms, $t(29) = 3.95$, $p < .05$ (Zuckerman & Lubin, 1985). Finally, no significant differences were found between in- and out-of-episode patients on any of the other variables of interest in this study. Depressed mood was, therefore, treated as a continuum within a clinical group in treatment for depression rather than utilizing the in-episode/out-of-episode distinction as a dichotomous variable.

Bivariate Correlations, Means, and Standard Deviations for All Variables

Zero-order correlations, means, and standard deviations for all variables are presented in Table 1. Consistent with Coyne's theory, patient and spouse self-reported depressed mood were correlated, $r(87) = .41$, $p < .05$. A t test revealed that spouse distress was significantly more elevated than the population norms, $t(88) = 3.15$, $p < .05$ (Zuckerman & Lubin, 1985). Spouse EE was correlated with patient reassurance seeking, $r(87) = .31$, $p < .05$, and with spouse mood, $r(87) = .36$, $p < .05$. Spouse appraisal was correlated with reassurance seeking, $r(87) = -.42$, $p < .05$, and with spouse mood, $r(87) = -.34$, $p < .05$. Spouse marital adjustment was related to both spouse EE, $r(87) = -.44$, $p < .05$, and appraisal, $r(87) = .55$, $p < .05$. Finally, the two dependent variables, spouse EE and appraisal, were moderately correlated, $r(87) = -.36$, $p < .05$.

Formal Testing of Hypotheses

To examine whether the dichotomous episode status variable (in- vs. out-of-episode) would reduce the effects of patient depressed mood and reassurance seeking, it was entered first in all regression equations. The dichotomous episode status variable was not significant, nor did it reduce the significance of the theoretical variables.

Table 2 presents a hierarchical regression analysis exploring the ability of patient reassurance seeking and spouse depressed mood

Table 1
Intercorrelation Matrix, Means, and Standard Deviations for All Variables

Variable	1	2	3	4	5	6
1. DEP-P	.91	—				
2. DIRI	.11	.85	—			
3. DEP-S	.41**	.13	.93	—		
4. DAS	-.28**	-.38**	-.45**	.94	—	
5. PPA	-.24**	-.42**	-.34**	.55**	.79	—
6. LEE	.14	.31**	.36**	-.44**	-.36**	.85
M	76.63	10.53	56.26	104.55	53.78	9.88
SD	27.00	6.07	17.64	18.22	11.41	6.79

Note. $N = 89$. Coefficient alpha for each of the measures is reported on the diagonals. DEP-P = self-reported patient depressed mood; DIRI = Depressive Interpersonal Relationships Inventory—Reassurance-Seeking Subscale; DEP-S = self-reported spouse depressed mood; DAS = Dyadic Adjustment Scale measuring spouse marital adjustment; PPA = Principal Index of Partner Appraisal measuring spouse appraisal of patient; LEE = Level of Expressed Emotion (spouse).
*$p < .05$. **$p < .01$.

to account for spousal attitudes. In a first series of analyses, spouse EE served as the dependent variable. The results indicated that both patient reassurance seeking, $t(85) = 2.71$, $p < .01$, and spouse depressed mood, $t(85) = 2.88$, $p < .01$, made a unique contribution to the variance in EE, $F(1, 88) = 9.04$, $p < .05$, with an R^2 value of .18. Next, the model was retested to determine whether the effects of patient reassurance seeking and spouse mood would persist when spouse marital adjustment was first entered as a control variable. The results indicated that, after controlling for spouse marital adjustment, spouse mood, $t(84) = 2.00$, $p < .05$, but not patient reassurance seeking, $t(84) = 1.77$, ns, continued to make a unique contribution to EE, $F(2, 87) = 3.54$, $p < .05$, with a change in R^2 of .05.

In a second series of analyses, spouse appraisal of the patient served as the dependent variable. The lower portion of Table 2 indicates that patient reassurance seeking, $t(85) = -4.07$, $p < .01$, and spouse mood, $t(85) = -2.75$, $p < .01$, entered at Step 1 each made a unique contribution to the variance in spouse appraisal, $F(1, 88) = 13.81$, $p < .05$, with an R^2 value of .25. Next, the model was retested with spouse marital adjustment treated as a control variable. The results indicated that only patient reassurance seeking, $t(84) = -2.72$, $p < .01$, but not spouse mood, $t(84) = 1.44$, ns, continued to make a unique contribution to the variance in spouse appraisal of patient, $F(2, 87) = 4.77$, $p < .05$, with a change in R^2 of .08.

Discussion

The results of the present study concur with previous reports that those who live with depressed persons are themselves vulnerable to psychological distress (Coyne et al., 1987). This finding is noteworthy given that family functioning and child adjustment when one adult in the family is depressed may depend on the adjustment and availability of the other partner (Downey & Coyne, 1990). Repeated findings of distress among the spouses of depressed persons adds to the accumulating evidence that the social costs of depression are not limited to the patient.

Support for Coyne's (1976a) interpersonal model was obtained in the context of marital relationships. In the case of each dependent variable, spouse EE and appraisal, patient reassurance seeking, and spouse distress made a significant contribution to the variance explained. These results suggest the benefits of further exploring the interface between Coyne's model and EE. One fruitful direction may be to examine the temporal parameters of the relation. In this study, cross-sectional data were analyzed and interpreted with the assumption that interpersonal processes are causally prior to EE. This assumption deserves an empirical test. The two dependent variables, spouse EE and appraisal, were moderately correlated, indicating some convergent validity, but not so correlated as to suggest that they are identical. The size of the relationship between them allows for different correlates.

The present study did not substantiate the suggestion that spousal attitudes can be more simply understood as a facet of the general marital distress characterized in these couples. In the case of each dependent variable, partial support for the model was obtained even after subjecting it to a conservative test, by controlling for spouse marital adjustment. However, the patterning of results was different for the two dependent variables: When expressed emotion was the dependent variable, only spouse distress

Table 2

Regression Equations Predicting Spouse Expressed Emotion and Appraisal From Coyne's Interactional Model

Dependent variable	Step predictor	β	R^2	Increment in R^2
LEE	1. DIRI	.27**	.18**	
	DEP-S	.29**		
LEE	1. DAS	−.40**	.16**	
	2. DIRI	.18	.23*	.07*
	DEP-S	.21*		
PPA	1. DIRI	−.39**	.25**	
	DEP-S	−.26**		
PPA	1. DAS	.54**	.29**	
	2. DIRI	−.26**	.37**	.07**
	DEP-S	−.14		

Note. $N = 89$. LEE = Level of Expressed Emotion (spouse); PPA = Principal Index of Partner Appraisal measuring spouse appraisal of patient; DIRI = Depressive Interpersonal Relationships Inventory—Reassurance-Seeking subscale; DEP-S = self-reported spouse depressed mood; DAS = Dyadic Adjustment Scale measuring spouse marital adjustment.
$*p < .05.$ $**p < .01.$

continued to make a significant contribution, whereas when partner appraisal was the dependent variable, only patient reassurance seeking remained significant. Within the limits of a cross-sectional design and a moderate sample size, it is difficult to choose among possible reasons for this. There is the risk of misinterpreting spurious relations, in that these results could simply be due to shared variance between the measure of marital adjustment and the dependent variables. However, what does seem to be clear is that the relation between the variables postulated by Coyne's model and the dependent variables is not entirely reducible to marital dissatisfaction.

In closing, some caution is needed in interpreting these findings. First, a control group was not included in the study; consequently, the design of this study does not address the specificity of the reassurance seeking–spousal attitude connection to depression. Second, the present study does not provide for a test of the temporal ordering of what is undoubtedly a set of complex reciprocal processes. An obvious solution would be to use a longitudinal design. However, it should be recognized that the point at which depressed married persons are available for study in a treatment setting might be late in a long interpersonal process. Depression is a recurrent, episodic disorder having a mean age of onset in the mid-20s, somewhat earlier than the mean age of first marriage (Coyne & Benazon, in press). The typical depressed patient has had repeated episodes (Coyne, Pepper, & Flynn, 1999) and has endured depression for years before entering treatment (Kessler, Olfson, & Berglund, 1998). Indeed, patients in the present study were in their mid-40s, had a mean of seven episodes of depression, and had been married for more than 16 years. There may even be selection biases in terms of which marriages with a depressed person have endured to the point of this treatment seeking (Bruce, 1998). The full maturation of an interpersonal perspective on depression requires well-designed longitudinal studies with attention to the temporal parameters of the interpersonal processes that are being studied. However, what is needed first is a careful delineation of the patterns accessible at a single point in time.

References

Beach, S. R. H., Whisman, M. A., & O'Leary, K. D. (1994). Marital therapy for depression: Theoretical foundation, current status, and future directions. *Behavior Therapy, 25,* 345–371.

Biglan, A., Hops, H., Sherman, L., Friedman, L., Arthur, J., & Osteen, V. (1985). Problem solving interactions of depressed women and their spouses. *Behavior Therapy, 16,* 431–451.

Bruce, M. L. (1998). Divorce and psychopathology. In B. P. Dohrenwend (Ed.), *Adversity, stress, and psychopathology* (pp. 219–234). New York: Oxford Press.

Cole, J. D., & Kazarian, S. S. (1988). The Level of Expressed Emotion Scale: A new measure of expressed emotion. *Journal of Clinical Psychology, 46,* 392–397.

Coyne, J. C. (1976a). Depression and the response of others. *Journal of Abnormal Psychology, 85,* 186–193.

Coyne, J. C. (1976b). Toward an interactional description of depression. *Psychiatry, 39,* 28–40.

Coyne, J. C. (1999). Thinking interactionally about depression: A radical restatement. In T. E. Joiner & J. C. Coyne (Eds.), *Interpersonal processes in depression* (pp. 369–392). Washington, DC: American Psychological Association.

Coyne, J. C., & Benazon, N. R. (in press). Coming to terms with the nature of depression in marital research and treatment. In S. R. H. Beach (Ed.), *Marital and family processes in depression.* Washington, DC: American Psychological Association.

Coyne, J. C., Kessler, R. C., Tal, M., Turnbull, J., Wortman, C. B., & Greden, J. F. (1987). Living with a depressed person. *Journal of Consulting and Clinical Psychology, 55,* 347–352.

Coyne, J. C., Pepper, C. M., & Flynn, H. (1999). Significance of prior episodes of depression in two patient populations. *Journal of Consulting and Clinical Psychology, 67,* 76–81.

Crane, D. R., Allgood, S. M., Larson, J. H., & Griffin, W. (1990). Assessing marital quality with distressed and nondistressed couples: A comparison and equivalency table for three frequently used measures. *Journal of Marriage and the Family, 52,* 87–93.

Depression Guideline Panel. (1993). *Guideline report on the diagnosis and treatment of depression in primary care.* Rockville, MD: U.S. Department of Health and Human Services, Agency for Health Care Policy Research.

Downey, G., & Coyne, J. C. (1990). Children of depressed parents: An integrative review. *Psychological Bulletin, 108,* 50–76.

First, M. B., Spitzer, R. L., Gibbon, M., & Williams, J. B. W. (1995). *Structured Clinical Interview for DSM–IV (SCID–I/P Version 2.0).* New York: Biometrics Research Department, New York State Psychiatric Institute.

Hooley, J. M. (1986). Expressed emotion and depression: Interactions between patients and high- versus low-expressed-emotion spouses. *Journal of Abnormal Psychology, 95,* 237–246.

Hooley, J. M., & Licht, D. M. (1997). Expressed emotion and causal attributions in the spouses of depressed patients. *Journal of Abnormal Psychology, 106,* 298–306.

Hooley, J. M., Orley, J., & Teasdale, J. D. (1986). Levels of expressed emotion and relapse in depressed patients. *British Journal of Psychiatry, 148,* 642–647.

Hops, H., Biglan, A., Sherman, L., Arthur, J., Friedman, L., & Osteen, V. (1987). Home observations of family interactions of depressed women. *Journal of Consulting and Clinical Psychology, 55,* 341–346.

Joiner, T. E., Jr. (1994). Contagious depression: Existence, specificity to depressed symptoms, and the role of reassurance-seeking. *Journal of Personality and Social Psychology, 67,* 287–296.

Joiner, T. E., Jr., Alfano, M. S., & Metalsky, G. I. (1992). When depression breeds contempt: Reassurance-seeking, self-esteem, and rejection of depressed college students by their roommates. *Journal of Abnormal Psychology, 12,* 113–134.

Joiner, T. E., Jr., Alfano, M. S., & Metalsky, G. I. (1993). Caught in the crossfire: Depression, self-consistency, self-enhancement, and the response of others. *Journal of Social and Clinical Psychology, 12,* 113–134.

Joiner, T. E., Jr., & Metalsky, G. I. (1995). A prospective test of an integrative interpersonal theory of depression: A naturalistic study of college roommates. *Journal of Personality and Social Psychology, 69,* 778–788.

Judd, L. L. (1997). The clinical course of unipolar major depressive disorders. *Archives of General Psychiatry, 54,* 989–991.

Katz, J., Beach, S. R. H., & Joiner, T. E., Jr. (1998). When does partner devaluation predict emotional distress? Prospective moderating effects of reassurance-seeking and self-esteem. *Personal Relationships, 5,* 409–421.

Kazarian, S. S., & Cole, J. D. (1993). Predictive validity of the Level of Expressed Emotion Scale (LEE): Readmission follow-up data for 1, 2, and 5-year periods. *Journal of Clinical Psychology, 49,* 216–218.

Kazarian, S. S., Malla, A. K., Cole, J. D., & Baker, B. (1990). Comparisons of two expressed emotion scales with the Camberwell Family Interview. *Journal of Clinical Psychology, 46,* 306–309.

Kazarian, S. S., Mazmanian, D. S., McDermott, K., & Olinger, L. J. (1991, June). *The interrelationship of measures of affective familial climates.* Paper presented at the annual convention of the Canadian Psychological Association, Calgary, Alberta.

Kessler, R. C., Olfson, M., & Berglund, P. A. (1998). Patterns and predictors of treatment contact after first onset of psychiatric disorders. *American Journal of Psychiatry, 155,* 62–69.

Metalsky, G. I., Joiner, T. E., Jr., Potthoff, J., Pacha, L., Alfano, M. S., & Hardin, T. (1991). *The Depressive Interpersonal Relationships Inventory.* Unpublished manuscript.

Paykel, E. S., Ramana, R., Cooper, Z., Hayhurst, H., Kerr, J., & Barocka, A. (1995). Residual symptoms after partial remission: An important outcome in depression. *Psychological Medicine, 25,* 1171–1180.

Pelham, B. W., & Swann, W. B., Jr. (1989). From self-conceptions to self-worth: On the sources and structure of global self-esteem. *Journal of Personality and Social Psychology, 57,* 672–679.

Sabatelli, R. M. (1988). Measurement issues in marital research: A review and critique of contemporary survey instruments. *Journal of Marriage and the Family, 50,* 891–915.

Schmaling, K. B., & Jacobson, N. S. (1990). Marital interaction and depression. *Journal of Abnormal Psychology, 99,* 229–236.

Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family, 38,* 15–28.

Vaughn, C. E., & Leff, J. P. (1976a). The influence of family and social factors on the course of psychiatric illness: A comparison of schizophrenic and depressed neurotic patients. *British Journal of Psychiatry, 129,* 125–137.

Vaughn, C. E., & Leff, J. P. (1976b). The measurement of expressed emotion in the families of psychiatric patients. *British Journal of Social and Clinical Psychology, 15,* 157–165.

Vaughn, C. E., & Leff, J. P. (1981). Patterns of emotional response in relatives of schizophrenic patients. *Schizophrenia Bulletin, 7,* 43–44.

Weissman, M. M., & Paykel, E. S. (1974). *The depressed woman: A study of social relationships.* Chicago: University of Chicago Press.

Zuckerman, M., & Lubin, B. (1985). *Manual for the MAACL-R: The Multiple Affect Adjective Check List-Revised.* San Diego, CA: Educational and Industrial Testing Service.