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BRIEF REPORT

Vulnerability to depressive symptoms: Clarifying the role of excessive reassurance seeking and perceived social support in an interpersonal model of depression

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This study investigated whether key constructs in Coyne's (1976) interpersonal theory of depression, namely excessive reassurance seeking and social support, combine to confer risk for future depressive symptoms. Consistent with hypotheses, excessive reassurance seeking interacted with changes in perceived social support to predict the prospective development of depressive symptoms. Furthermore, the interaction of excessive reassurance seeking and changes in perceived social support were specific to the development of depressive symptoms, but not anxious symptoms. The implications of these results for the interpersonal theories of depression are discussed.

According to Coyne's (1976) interpersonal theory, excessive reassurance seeking and decreases in social support are important vulnerability factors for depression. Specifically, this theory posits that some mildly dysphoric (nondepressed) people seek reassurance as to whether others truly care about them. When others provide reassurance, these mildly dysphoric people doubt its sincerity and seek further reassurance. The pattern repeats

and culminates in the rejection of the reassurance seekers. Accordingly, the reassurance seekers perceive a loss of social support, which, in turn, leads to more serious depressive symptomatology. In short, the theory describes an interpersonal process that may contribute to the development of depression. The goal of the present study was to test a key prediction of this theory—namely, high levels of reassurance seeking coupled with decreases in perceived social support lead to increases in depressive symptomatology.

In the years since Coyne first proposed his interpersonal theory of depression, research has focused on two main roles of reassurance seeking: (1) as a potential moderator of the relationship between current depression and low levels of social support (e.g., Joiner, 1999; Joiner, Alfano, & Metalsky, 1993; Joiner & Metalsky, 1995; Katz & Beach, 1997); and (2) as a general vulnerability factor that causes an increase in depressive symptoms in the presence of high stress (e.g., Joiner & Metalsky, 2001; Katz, Beach, & Joiner, 1998). By and large, these studies have provided support for Coyne's interpersonal theory of depression (see Joiner, Metalsky, Katz, & Beach, 1999, for a review). Surprisingly, however, an important prediction of the theory has yet to be tested: does excessive reassurance seeking combine with decreases in perceived social support to cause future depressive symptoms?

We conducted a 5-week longitudinal study to examine whether reassurance seeking interacts with changes in perceived social support to predict prospective changes in depressive symptoms. Based on Coyne's interpersonal theory, we hypothesised that excessive reassurance seeking would lead to the development of depressive symptoms in the presence, but not absence, of decreases in perceived social support. Additionally, based on Joiner and Metalsky's (2001) assertion that excessive reassurance seeking confers specific risk for depression, we predicted that the combination of excessive reassurance seeking and decreases in perceived social support would be a specific predictor of depressive, but not anxious, symptoms.

METHOD

Participants and procedures

Participants were 111 undergraduate students (70 females), ages 17 to 23 ($M = 18.65$; $SD = 1.10$), from a large southeastern state university. All participants were recruited from introductory psychology courses and received course credit for their involvement in the study. Following completion of all study measures at Time 1 (T1), participants were asked to return 5 weeks later for re-administration of the same measures at Time 2 (T2). Inclusion criteria for the study were that participants completed all relevant measures at T1 and T2. Fourteen participants (9 females) failed to

return for T2. Using MANOVA procedures, we compared the attrition group ($N=14$) to the final sample ($N=111$) on all T1 variables. Using an alpha level of .05, results revealed no significant differences between groups on any T1 variables.

Measures

Beck Anxiety Inventory (BAI). The BAI (Beck, Epstein, Brown, & Steer, 1988) is a 21-item self-report inventory that assesses general symptoms of anxiety over the previous two weeks. Each of the 21 individual items is rated on a 0 to 3 scale, with total scores ranging from 0 to 63. In a variety of clinical and nonclinical populations, the BAI's reliability, convergence with other anxiety measures, and discriminant validity with respect to depression measures have been well supported (Beck et al., 1988).

Beck Depression Inventory (BDI). The BDI (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) is a 21-item self-report inventory that assesses the level of depressive symptoms over the previous two weeks. Each of the 21 individual items is rated on a 0 to 3 scale, with total scores ranging from 0 to 63. The BDI has been well validated as a measure of severity of depressive symptomatology, and has yielded adequate reliability estimates (see Beck, Steer, & Garbin, 1988, for a review).

Excessive Reassurance Seeking Scale (RSS). The RSS (Joiner, Alfano, & Metalsky, 1992; Joiner & Metalsky, 1995) is a 4-item self-report scale that measures reassurance seeking, defined as a tendency to excessively seek reassurance from others as to whether they "truly" care. Each of the 4 items is rated on a 7-point scale (from 0 to 6). Total scores range from 0 to 24, with higher scores corresponding to increasing reassurance seeking. Joiner, Metalsky, and colleagues have reported criterion and construct validity data for the scale (see Joiner, 1994a; Joiner & Metalsky, 1995).

Social Support Questionnaire (SSQ). The SSQ (Sarason, Levine, Basham, & Sarason, 1983) contains 27 items. Each item asks participants: (a) to list the people to whom they can turn and on whom they can rely in given sets of circumstances; and (b) to indicate their level of satisfaction with these social supports. Sarason et al. (1983) reported alpha internal consistency coefficients in the .90s and a series of supportive construct validation studies. In this study, we used participants' perceived satisfaction with support (the second facet), as opposed to quantity, because it may represent a more sensitive measure of an individual's discernment of social rejection. We used an abbreviated version of the SSQ to limit the amount of time for participants to complete questionnaires. The abbreviated SSQ has performed similarly to its parent questionnaire in previous research (Joiner,

1997). Scores on the SSQ measure were summed across items. Thus, an individual's score represents the total level of satisfaction with their social support.

RESULTS

Means and standard deviations of, and inter-correlations between, all measures are summarised in Table 1.

Excessive reassurance seeking ×change in social support interaction. A hierarchical multiple regression procedure (Cohen & Cohen, 1983) was used to test the prediction that the interaction of reassurance seeking and changes in perceived social support would predict levels of depression at Time 2. Consistent with the recommendations of Aiken and West (1991), all continuous variables were z-scored to protect against multi-collinearity. The level of depression at Time 2 (T2 BDI) served as the dependent variable. Time 1 level of depression (T1 BDI) was first entered into the equation, thereby creating residual change scores in BDI from Time 1 to Time 2. The reassurance seeking (T1 RSS) and social support (SSQ Change; SSQ T1 − SSQ T2) variables were entered next as main effects. Finally, the reassurance seeking and social support interaction (RSS ×SSQ Change) was entered. Consistent with our predictions, the interaction of reassurance seeking and changes in social support significantly predicted changes in BDI scores, $pr = .31$, $t(106) = 3.40$, $p < .01$ (see Table 2).[1]

To examine the pattern of the interaction, participants were divided into 4 groups as determined by a median split on the variables of excessive reassurance seeking (high reassurance seeking, low reassurance seeking) and changes in perceived social support (increase in social support, decrease in social support). The depressive symptom score (Time 2) for each group is shown in Figure 1. Because the median score on the social support variable was 0 (i.e., no change in social support), participants were neatly categorised into those who perceived an increase in social support and those who perceived a decrease in social support. The pattern of results shown in Figure 1 is consistent with predictions. High reassurance seeking leads to the development of depressive symptoms in the presence, but not absence, of decreases in perceived social support.

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[1] To test the assumption of homogeneity of covariance, we added all two-way interactions between the covariate and predictor variables to the final step of the regression equation (see Joiner, 1994b). Consistent with the assumption of homogeneity of covariance, the main analyses remained significant and all covariate by predictor variable interactions were not significant.

TABLE 1
Means (*M*) and standard deviations (*SD*) of and inter-correlations between all measures

Variable	1	2	3	4	5	6	7	8
1. T1 BAI	—							
2. T2 BAI	.61*	—						
3. T1 BDI	.67*	.60*	—					
4. T2 BDI	.50*	.58*	.80*	—				
5. T1 RSS	.42*	.31*	.37*	.34*	—			
6. T2 RSS	.45*	.38*	.53*	.58*	.77*	—		
7. T1 SSQ	−.20*	−.29*	−.27*	−.31*	−.15	−.26*	—	
8. T2 SSQ	−.29*	−.39*	−.43*	−.44*	−.11	−.22*	.64*	—
M	10.41	7.15	8.34	6.86	5.85	4.50	25.70	24.99
SD	8.23	7.92	6.58	7.15	5.25	4.88	5.15	6.74

Note: N =111. BAI =Beck Anxiety Inventory; BDI =Beck Depression Inventory; RSS = Reassurance seeking Scale; SSQ =Social Support Questionnaire; T1 =Time 1; T2 =Time 2. *p <.05.

Specificity test. We tested whether the interaction of reassurance seeking (RSS 1) and changes in perceived social support (SSQ Change) predicted increases in anxious symptoms. Similarly to the previous analysis, a hierarchical multiple regression procedure was used. However, in this analysis, the dependent variable was level of anxiety at Time 2 (T2 BAI) and the covariate was Time 1 level of anxiety (T1 BAI). Consistent with the specificity hypothesis, the interaction of reassurance seeking and changes in social support was not a significant predictor of changes in BAI scores, $pr = .12$, $t(106) = 1.3$, $p = .21$.

TABLE 2
The interaction of excessive reassurance seeking and changes in social support predicting Time 2 depressive symptoms

Predictors	F for set	t for within-set predictors	df	Partial correlation (pr)	Model R²
Step 1					
T1 BDI	197.82*	14.06*	1, 109	.80	.65
Step 2	65.49*		2, 107		.65
SSQ-C		.31	107	.03	
T1 RSS		.88	107	.09	
Step 3					
SSQ-C ×T1 RSS	56.86*	3.40*	1, 106	.31	.68

Note: N =111. BDI =Beck Depression Inventory; RSS =Reassurance seeking Scale; SSQ-C =Social Support Questionnaire – Change Score (T1 SSQ – T2 SSQ). *p <.05.
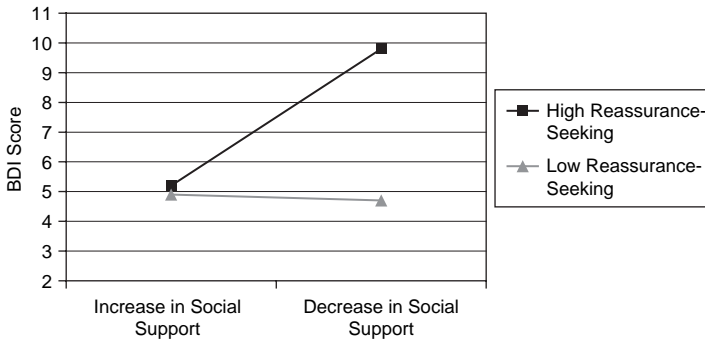
Figure 1. Depressive symptoms at Time 2 as a function of reassurance seeking and changes in perceived social support.

DISCUSSION

As predicted, we found that reassurance seeking interacted with changes in perceived social support to predict the prospective development of depressive symptoms. Specifically, people who engaged in excessive reassurance seeking exhibited increases in depressive symptoms only when they perceived a decrease in social support. This result provides the first support for a key prediction of Coyne's (1976) interpersonal theory of depression.

In line with prior work, reassurance seeking and decreases in social support were not, by themselves, sufficient to cause depression. Neither the main effect of reassurance seeking nor the main effect of changes in perceived social support predicted changes in depressive symptoms. This suggests that excessive reassurance seeking and decreased social support should be conceptualised within a vulnerability-stress framework. Within this framework, results indicate that a perceived loss of social support may be a particularly potent stressor for people with high levels of reassurance seeking behaviour. This hypothesis makes intuitive sense given that the goal of reassurance seeking is to garner positive social feedback from others. A perceived loss in social support should be particularly detrimental to people who desire it so greatly.

Results also revealed that excessive reassurance seeking did not combine with decreases in perceived social support to predict increases in anxious symptoms. This result supports Joiner and Metalsky's (2001) hypothesis that reassurance seeking constitutes a vulnerability specific to depression. It further suggests that anxiety and depression may be characterised by interpersonal factors that are specific to each disorder. In other words, although the combination of excessive reassurance-reassurance seeking and decreases in perceived social support lead to increases in depressive symptoms, an entirely different set of maladaptive interpersonal factors

may contribute to the development of anxiety disorders. This speculation is similar to Beck's (1967) cognitive content-specificity model, which suggests that anxiety and depression are characterised by cognitive content that is specific to each disorder.

There are at least two limitations of the present study. First, we examined depressive and anxious symptoms, not clinical diagnoses. Thus, we cannot make conclusions about clinically significant forms of depression and anxiety. Second, our sample was limited to undergraduates. Decreases in perceived social support may be a particularly potent stressor for undergraduates (Barnett & Gotlib, 1990), and results may not generalise to other populations. Future research will need to examine whether the combination of excessive reassurance seeking and decreases in perceived social support leads to depression in a community sample.

In conclusion, findings support Coyne's (1976) hypothesis that reassurance seeking and changes in perceived social support interact to cause changes in depressive symptoms. Detailed investigations of interactions such as this will lead to a deeper understanding of the causes of depression and, thus, will provide an impetus for improvements in the way that depression is prevented (and treated).

REFERENCES

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

Barnett, P. A., & Gotlib, I. H. (1990). Cognitive vulnerability to depressive symptoms among men and women. *Cognitive Therapy and Research, 14,* 47–61.

Beck, A. T. (1967). *Depression: Clinical, experimental, and theoretical aspects.* New York: Harper & Row.

Beck, A. T., Epstein, N., Brown, G., & Steer, R. (1988). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology, 56,* 893–897.

Beck, A. T., Steer, R. A., & Garbin, M. G. (1988). Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. *Clinical Psychology Review, 8,* 77–100.

Beck, A. T., Ward, C. H., Mendelson, M., Mock, T., & Erbaugh, T. (1961). An inventory for measuring depression. *Archives of General Psychiatry, 4,* 561–571.

Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioural sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

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

Joiner, T. E., Jr. (1994a). 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. (1994b). Covariance of baseline symptom scores in prediction of future symptom scores: A methodological note. *Cognitive Therapy and Research*, *18*, 497–504.

Joiner, T. E., Jr. (1997). Shyness and low social support as interactive diatheses, with loneliness as mediator: Testing an interpersonal-personality view of vulnerability to depressive symptoms. *Journal of Abnormal Psychology*, *106*(3), 386–394.

Joiner, T. E., Jr. (1999). A test of interpersonal theory of depression in youth psychiatric patients. *Journal of Abnormal Child Psychology*, *27*, 77–85.

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*, *101*, 165–173.

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.

Joiner, T. E., Jr., & Metalsky, G. I. (2001). Excessive reassurance seeking: Delineating a risk factor involved in the development of depressive symptoms. *Psychological Science*, *12*, 371–378.

Joiner, T. E., Jr., Metalsky, G. I., Katz, J., & Beach, S. R. H. (1999). Depression and excessive reassurance seeking. *Psychological Inquiry*, *10*, 269–278.

Katz, J., & Beach, S. R. H. (1997). Romance in the crossfire: When do women's depressive symptoms predict partner relationship dissatisfaction? *Journal of Social and Clinical Psychology*, *16*, 243–258.

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

Sarason, I. G., Levine, H. M., Basham, R. B., & Sarason, B. R. (1983). Assessing social support: The social support questionnaire. *Journal of Personality and Social Psychology*, *44*, 127–139.