Illness-Specific and General Perceptions of Social Relationships in Adjustment to Rheumatoid Arthritis: The Role of Interpersonal Expectations

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ABSTRACT

Background: Adjustment to rheumatoid arthritis (RA) may be made more difficult when patients are unable to meet the expectations of family and friends about how well they are coping. Purpose: This study investigated the influence of illness-specific interpersonal expectations and general indices of social interactions on depressive symptoms among 39 women with RA (M age = 46.9 years; M disease duration = 11.2 years). Methods: Female patients with RA and their spouses were recruited from an outpatient rheumatology clinic at an urban university hospital. Participants completed questionnaires at home and returned them to the research staff in prepaid, stamped envelopes. Results: Results showed a significant correlation between spousal expectations and patients' perceived inability to meet them. Further, hierarchical regression analyses indicated that even when controlling for disease severity and traditional measures of social interactions (e.g., social support, perceived criticism, and general quality of the dyadic relationship), patient's perceived inability to meet spousal expectations contributed unique variance in depressive symptoms. Conclusions: These results suggest that adjustment to RA is not due entirely to the general features of social relationships, but additionally reflect specific aspects of the chronic illness milieu where spousal expectations and the patient's perceived inability to meet them are also related to adjustment.

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INTRODUCTION

Rheumatoid arthritis (RA) is a chronic autoimmune disease with no known cause or cure. Although severe disfiguration, constant pain, debilitating fatigue, and tiredness are symptoms that

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mark extremely advanced forms of RA (1), the most prevalent disease course is one consisting of periodic fluctuations of flares and remissions (2). Patients with RA often report difficulty in coping with the unpredictable nature of the disease (3,4) and, as a result, must make adjustments to cope with physical impairment and functional disability. The psychosocial adjustment of patients with RA also becomes a salient issue because of the impact that these impairments have on their perceived self-efficacy and the quality of their interpersonal relationships (5).

The social context in which RA occurs is an important factor that determines how individuals cope with its stresses (1,6–9). Recent findings indicate that RA disease activity *increases* when patients report stressful conflicts in their relationships—especially with close significant others such as spouses or partners (7,10). Thus, RA symptoms can produce constraints in social interactions, leading some researchers to suggest that the most effective avenue toward studying the interpersonal processes that are involved in psychosocial adjustment is one that focuses on the transactions that occur between patients and their close significant others (11,12).

Adjustment to RA may be made more difficult when friends and family members fail to understand the magnitude of the illness and its consequences for the patient's life. Significant others who do not understand or who lack information about the nature of RA are likely to develop expectations about the ability of the patient to function and manage the illness. These expectations may exceed the patient's own perceived capabilities, and as a result, patients may perceive that they are unable to meet the expectations of significant others in a number of important life domains. We use the term *perceived expectations* to refer to the patient's perceived inability to meet the expectations of others (13). In the study presented here, patients' perceptions that they are not able to meet the expectations of their spouses were explored in three domains specifically related to RA: coping with the illness (patients perceive that spouses expect them to cope much better with RA than they actually can), responsibility for treatment (patients perceive that spouses expect them to take more responsibility for treatment than they can manage), and ability to perform routine functions (patients perceive that spouses expect them to do more around the house, etc.). These specific perceptions of spousal expectations, explained later, are also related to the broader concept of "feeling misunderstood" by family members, which we also assessed.

Based on the theoretical writings of social psychologist Solomon Asch (14) and psychiatrist R. D. Laing (15), we have articulated a framework that highlights *specific* mechanisms by

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which interpersonal factors influence adjustment (13,16). Asch emphasized that (a) perceptions and expectations form the basis of all social interactions, and (b) shared understanding is the usual rule because common perceptual and cognitive structures lead to similar perceptions among persons in a given situation. However, when discordant perceptions emerge as a result of misinformation and/or disagreements about a given situation (as dramatically portrayed in Asch's famous line-judging study), feelings of misunderstandings and substantial stress also emerge. Similar to the processes underlying Asch's line-judging study, we propose that discordant interpersonal cognitions or expectations about the specific parameters of a chronic illness and its management (the object of judgment in this case) underlie the amorphous feelings of misunderstanding that are commonly reported in studies of emotional social support. According to this framework, "feelings of misunderstanding" arise when the patient's own perception that he or she cannot cope (the patient's direct perception) is discordant with the patient's perception of his or her spouse's expectations that he or she should cope (the patient's metaperspective) (13,15). To give an example, one patient with RA described feeling frustrated when her spouse insisted that she take more responsibility for her illness. Specifically, she perceived that her spouse expected her to take several prescribed medications to control the pain and stiffness she experienced (metaperspective) but saw herself as being unable to comply on a daily basis because the medications often made her nauseous and sick (direct perspective). Laing et al. (15) contend that reports of "feeling misunderstood" manifest from both specific discordant interpersonal cognitions and expectations that evolve from discrepancies between the patient's direct perspective (e.g., the patient's perception of medication) and metaperspective (e.g., the patient's perception of the spouse's perception of medication). These discordant cognitions and feelings of being misunderstood are likely to lead to psychosocial distress as reflected by depressive mood (13).

The precise causal relation between perceived expectations and interpersonal misunderstanding is undoubtedly complex, as Hatchett et al. (13) discussed, and goes beyond the scope of our study. For example, misunderstanding by family members about arthritis may lead to inappropriate or excessive expectations that patients cannot meet, which then results with patients feeling misunderstood. We do not attempt, in this study, to unravel the causal sequence between these processes. Our attempt here is merely to demonstrate a connection between illness-specific perceptions of spousal expectations and feeling misunderstood.

Studies conducted by Friend and colleagues provide empirical support for the idea that perceptions of feeling misunderstood are related to psychosocial adjustment. In one study of 98 participants with end-stage renal disease, interpersonal misunderstanding was found to be strongly associated with adjustment: the more that patients reported that "people don't take my illness seriously enough," the more depressed they were (17). These authors argued that their study indicated that medical staff and family members expected self-care dialysis patients to cope much better even though the patients were seriously ill. In a second study, Hatchett et al. (13) directly tested the relationship between (a) specific illness-related interpersonal expectations and (b) the more amorphous feelings of being misunderstood, and their relation to adjustment. Strong correlations were observed between patients' perceived inability to meet the expectations of significant others (both family and medical staff) and feeling misunderstood. Furthermore, these perceptions predicted subsequent increases in psychological distress over a 3-month period, even when statistically controlling for social support. However, the alternative explanation—that poorly adjusted or distressed patients would come to distort or misperceive the expectations of significant others or feel misunderstood—was not supported in their analyses.

Very few studies have addressed the specific effect of perceived expectations on the coping and adjustment of patients with RA; however, some have lent indirect support of the need for research to do so. For example, qualitative findings reported by Affleck, Pfeiffer, Tennen, and Fifield (18) revealed that specific behaviors by friends and family members (e.g., pessimistic comments and underestimation of the severity of the illness) disrupted relationships and constituted a source of stress for patients with RA. Further, conflicts with a significant other about pain have also been found to predict more severe depression in patients with chronic pain, including those with RA (19). One cross-sectional study showed a high incidence of disconfirmed expectations among 35 couples in which one member had RA (20). Melamed and Brenner used a list of 21 behavioral responses directed toward an individual in pain (20,21) and found that nearly 25% of the couples disagreed about which behaviors were supportive. Although causal relationships were not established in any of these studies, it is possible that the experience of patient distress may emerge from misunderstandings regarding the illness that often occur between patients and close significant others (13).

In our study, perceived expectations (including perceived misunderstanding) were compared with general assessments of social support, problematic relations, relationship quality, and perceived criticism. These variables represent a broad range of social interactions that have been shown in prior research to relate to psychosocial adjustment (12,13,22). Based on our conceptual framework, we expected specific relational patterns to be revealed between these variables and perceived expectations. We also assessed whether the patients' perceived inability to meet the expectations of their spouses were related to the actual expectations or demands placed by the spouses on the patients. Particularly, it was hypothesized that

- 1. Patients' perceived expectations of spouses would be correlated with excessive spousal demands or expectations.
- 2. Perceived expectations would negatively correlate with social support and relationship quality and positively correlate with problematic relations and perceived criticism.
- Perceived expectations would positively correlate with perceived misunderstandings.

 As an indication of their ability to assess relevant interpersonal relations more precisely, perceived expectations would predict unique variance in depression compared to more general social interaction variables.

METHOD

Procedure

Female, adult patients with RA and their spouses were recruited from an outpatient rheumatology clinic operated by a major urban university hospital in the northeastern United States. Patients were included in the study if they did not have cognitive impairments and could identify a spouse or cohabitating partner with whom they interacted at least five times per week.

Recruitment letters were sent to the patients, asking them to participate in a study that would assist researchers in learning about the role that social environments play in helping people cope with RA. Patient and spouse questionnaires were also included with the letter. Patients and spouses who did not wish to participate in the study were asked to return all materials in a prepaid, stamped envelope. Interested patients (and their spouses) were given explicit instructions on how to complete the questionnaires and return them to the researcher in prepaid, stamped envelopes.

Measures

Perceived expectations. Based on the Interpersonal Expectations Scale used by Hatchett et al. (13) with dialysis patients, a 16-item Patient Expectations Scale was developed (see Appendix) to assess perceptions of expectations from spouses of patients with RA. The items were derived from the results of semistructured interviews and focus groups conducted by Shawn Bediako with patients with RA, spouses, and heath professionals over a 16-month period in 1999 and 2000. Expectations pertained to the following illness-related domains: coping and adjusting to illness (e.g., "I sometimes feel that my spouse or partner expects me to cope much better with RA than I actually can"), RA symptoms (e.g., "At times I think that my spouse or partner expects me to take medicine that makes me feel nauseous or sick"), routine functions and activities (e.g., "At times I feel frustrated when my spouse or partner expects me to be more physically active than I'm capable of"), and perceived misunderstanding (e.g., "I'm doing the best that I can, but sometimes I think my spouse or partner doesn't understand what it is like to live with RA"). Each item described the expectation or demand placed on the patient and assessed the degree to which the patient felt unable to meet the expectation. Participants responded to each item on a 5-point scale from 1 (strongly disagree) to 5 (strongly agree). Higher scores indicated larger perceived discrepancy in expectations. Hatchett and others reported acceptable psychometric properties of their scale: test-retest reliability was .74, and Cronbach's alpha for internal consistency was .90 (13). In the study presented here, Cronbach's alpha for the Patient Expectations Scale was .93. To correlate perceived expectations with perceived misunderstanding, the sum of Items 2, 3, 4, 10, 12, and 15 were used to assess perceived misunderstanding, and the remaining items were summed to assess perceived expectations.

Spousal expectations. To assess the accuracy of patient perceptions regarding expectations from significant others, a spouse version of the Patient Expectations Scale was developed. Each item was changed to reflect the actual demands that spouses placed on patients. For example, items were rephrased as follows: "I sometimes feel she could cope much better with RA than she actually does," "My knowledge and understanding of the symptoms of RA is limited," "There are times when I expect her to be more physically active than she is now," and "At times I feel that she could be more hopeful about the future than she is right now." The spouse or partner rated each item on a 5-point scale from 1 (strongly disagree) to 5 (strongly agree). High scores indicated higher levels of demands placed on the patient. The sum of Items 2, 3, 4, 10, 12, and 15 was used to assess understanding, and the remaining items were summed to assess perceived expectations. The spouse version of the Patient Expectations Scale yielded an alpha coefficient of .86 in our study.

Social support and problematic relations. Positive social support and problematic relations were assessed by a modified version of a social support scale reported by Revenson et al. (23) in a study of recently diagnosed patients with RA. The scale contained 20 items that measured patient reports of the degree to which spouses or partners engaged in supportive and nonsupportive behaviors during a recent pain episode. Patients responded on a 5-point scale, ranging from 1 (never) to 5 (all of the time). Sixteen items assessed positive support (e.g., "listened to you," "talked about important decisions to you," and "did small favors for you"), and four items reflected problematic relations (e.g., "tried to change the way you're coping with your illness in a way you didn't like" and "became annoyed when you didn't accept their advice"). Social support and problematic relations scores were computed by summing responses to appropriate items and then dividing by the total number of items in the scale, yielding a range from 1 (low support) to 5 (high support) for both positive support and problematic relations. The Positive and Problematic Support Scales have yielded acceptable psychometric properties in studies with diverse populations with RA (8,23,24). Cronbach's alpha for internal consistency in our study was .90 and .59 for positive support and problematic relations, respectively.

Relationship quality. A short form of the Dyadic Adjustment Scale (DAS) (25,26) measured relationship quality. The original DAS is a 32-item, primarily Likert-type scale developed for married or cohabitating couples. The short form consisted of seven items that assessed the patient's overall degree of happiness in the relationship, the approximate extent of agreements or disagreements about the relationship, and the frequency of pro-social interactions between the patient and the spouse. Scores were summed from these dimensions to yield a single measure of global relationship quality, ranging from 6 to 42. Higher scores indicated a better relationship quality.

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The full DAS has very high internal consistency (.90) and has been highly stable over periods ranging from 3 weeks to 4 years (27–29). The 7-item version yields correlation values similar to those obtained with the full scale DAS and has been recommended as a psychometrically appropriate substitution for the full 32-item scale (28). In our study, Cronbach's alpha for internal consistency for the DAS was .85.

Perceived criticism. Perceived criticism was assessed by one item, "How critical of you do you feel your family and friends are?" Participants responded on a 10-point scale that ranged from 1 (*not at all critical*) to 10 (*very critical indeed*). Hooley and Teasdale (30) found this item to be moderately correlated with the amount of criticism expressed by family members of clinically depressed patients. It was also observed to be a significant predictor of subsequent relapse.

Disease severity. As an indicator of disease severity, each patient's rheumatologist completed a one-item global assessment of disease severity based on the patient's most recent visit to the clinic. The ratings ranged from 1 (*extremely mild*) to 6 (*extremely severe*).

Depression. The Beck Depression Inventory (BDI) (31) was used to assess depressive symptoms as a measure of adjustment. We computed a cognitive depression index that eliminates six items associated with physical symptoms of depression (e.g., changes in appetite or sleep patterns) because these symptoms are commonly present in nondepressed medically ill patients. Thus, our analyses utilize the cognitive depression index as the measure of depressive symptoms. The BDI is frequently used to assess depression in chronically ill populations and has yielded internal consistency estimates of .74 (32). The BDI items were answered on a 4-point scale from 0 (the absence of a problem) to 3 (an extreme problem). Scores in our analyses ranged from 0 to 45, with higher scores indicating more depressive symptoms. In

a study of dialysis patients, Hatchett et al. (13) reported a Cronbach's alpha of .85 and test–retest reliability of .73. In our study, the alpha coefficient for internal consistency was .91.

RESULTS

Participant Characteristics

Thirty-nine patients and their spouses returned packets that contained completed questionnaires. Thirty of the patient respondents were European American, and 5 were African American. Three patients were non-White Latinas, and 1 participant was multiethnic. On average, the patients were 46.9 years old (range = 30-65 years) with a mean disease duration of 11 years (range = 2-29 years). All of the significant others were male and predominantly identified themselves as spouses; only 1 person identified himself as a partner. Spouses reported a mean age of 48 years (range = 26-66 years) and had been living with the patients for an average of 19.4 years (range = 2-43 years).

Disease Severity

Cumulatively, the physician ratings yielded an overall mean of 2.94 (SD = .98) on the measure of disease severity. Of the 39 patients, 6% were classified has having an "extremely mild" disease state, 30% had a "mild" disease state, and 32% were categorized as "moderate." Twenty-nine percent of the patients were rated in the "moderately severe" category, and 3% were deemed "severe." As shown in Table 1, disease severity was significantly associated with discrepant patient expectations (r = .28), social support (r = -.42), problematic relations (r = .36), relationship quality (r = -.30), perceived criticism (r = .29), and depression (r = .27). Because disease severity was significantly correlated with patient expectations and the other predictor variables, we statistically controlled for it in subsequent multivariate analyses.

Zero-Order Correlations

Table 1 also presents the zero-order correlations between the major study variables along with Cronbach's alphas, means,

	1	2	3	4	5	6	7
1. Patient expectations	_						
2. Spouse expectations	.58***						
3. Social support	64***	53***					
4. Problematic relations	.40***	.31*	23	_			
5. Relationship quality	57***	49**	.72***	34*			
6. Perceived criticism	.29*	.43**	28*	.09	31*	_	
7. Depressive symptoms	.45***	.19	02	.23	29*	.16	_
Disease severity	.28*	.26	42***	.36**	30*	.29*	.27*
Μ	42.46	36.77	3.38	2.23	29.31	4.69	5.82
SD	13.36	9.55	.71	.76	6.14	2.79	6.31
Possible range	16-80	16-80	1–5	1–5	6-42	1-10	0-45
Observed range	16-67	23-61	2-5	1–4	17-39	1-10	0–25
α	.93	.86	.90	.59	.85		.91

TABLE 1 Correlations and Descriptive Statistics of Study Variables

Note. N = 39.

p < .05. p < .01. p < .005.

standard deviations, and ranges for all measures. Because directional relationships were proposed, one-tailed tests were used for all correlations.

Support was found for Hypothesis 1. A significant relationship was observed between perceived expectations and spouse demands; patients who perceived themselves as being unable to meet the expectations of their spouses were in fact more likely to have spouses who expected them to do more (r = .58, p < .001).

Patient expectations were significantly correlated with social support (r = -.64, p < .001), problematic relations (r = .40, p < .005), relationship quality (r = -.57, p < .001), and perceived criticism (r = .29, p < .05), suggesting that patients who felt unable to meet the demands of spouses were also likely to report fewer socially supportive behaviors, more problematic interactions, lower relationship quality, and more criticism from their spouses. This finding confirms Hypothesis 2, as these relationships were statistically significant in the expected directions.

Support was also found for the conceptual relations stated in Hypothesis 3, which predicted a substantial association between specific expectations and general feelings of misunderstanding. Patient expectations were strongly associated with perceived misunderstandings (r = .86, p < .001), indicating that the more patients reported feeling unable to meet the perceived expectations of the spouse, the more they reported feeling misunderstood by spouses.

Of interest, positive social support, problematic relations, and perceived criticism were not significantly related to depressive symptoms. The only social interaction variable that showed a significant relationship to depression was relationship quality (r = -.29, p < .05). This finding lent support to Hypothesis 4 because it appears that RA patients' perceived expectations are indeed more strongly related to depressive symptoms than the other relevant variables.

Conducting three separate multiple regression analyses where changes in R^2 were observed for depressive symptoms provided a more rigorous evaluation of Hypothesis 4. Disease severity was entered in the first step of the regression equation. Theoretically relevant variables were entered in the second step and patient expectations were entered in the last step. The results are shown in Table 2.

When controlling for disease severity, positive support, and problematic relations, perceived expectations contributed unique variance in depressive symptoms (R^2 change = .23), F(1, 34) = 13.75, p < .001. Perceived expectations also contributed unique variance to depressive symptoms (R^2 change = .15), F(1, 35) = 8.83, p < .005, when disease severity and relationship quality were held constant. Finally, patient's perceived expectations accounted for unique variance in depressive symptoms when controlling for disease severity and perceived criticism (R^2 change = .26), F(1, 35) = 14.22, p < .001.

Thus, hierarchical regression analyses yielded support for Hypothesis 4; when controlling for disease severity and other theoretically relevant variables, perceived expectations contributed unique variance in depressive symptoms. To summarize, these results suggest that patient expectations are related (but not similar) to social support, problematic relations, relationship

TABLE 2 Hierarchical Multiple Regression Analysis Predicting Depressive Symptoms

	Depressive Symptoms				
	R^2	$R^2\Delta$	Sig. F		
1. Disease severity	.07				
Social relations ^a	.21	.14			
Patient expectations	.44	.23	.001		
2. Disease severity	.07				
Relationship quality	.23	.16			
Patient expectations	.38	.15	.005		
3. Disease severity	.07				
Perceived criticism	.13	.06			
Patient expectations	.39	.26	.001		

Note. N = 39.

^aBoth Positive Support and Problematic Relations were entered simultaneously in Step 2.

quality, and perceived criticism. RA patients' perceived expectations are positively related to the demands that are placed on them by their spouses. Further, perceived expectations contributed unique variance to an index of depressive symptoms beyond that contributed by disease severity and other conceptually related variables.

DISCUSSION

The results of this study offer the interpersonal expectations model as a framework that is sensitive to the unique interpersonal context of RA patients and their close significant others. Social support interventions have shown very little impact on adjustment, primarily because researchers have been atheoretical in their approach to exploring important interpersonal processes (33). In contrast, the interpersonal expectations model provides a theory-based, viable avenue toward the development of future interventions that may effectively promote psychosocial adjustment. Isolated items in scales measuring emotional social support explicitly and implicitly express sentiments about feeling understood or feeling misunderstood (13); this theme is also consistent across research studies that have investigated social support among RA patients (23,34-38). One purpose of our study was to "deconstruct" the meaning of reports of feeling misunderstood in terms of specific discordant interpersonal cognitions and feelings surrounding the parameters of the illness. These sentiments were expressed in the perceived expectation items that we developed expressly for the purpose of this study. The correlation we observed between perceived expectations and perceived misunderstanding with RA patients (r = .86) is consistent with previous ones we have also observed with renal, cardiac, and clinically depressed patients (13,39,40). It is possible that many chronically ill patients are not able to articulate spontaneously or specifically why they feel misunderstood by significant others. Asking interpersonally relevant questions about the specific parameters of the illness and coping with it may elucidate why patients feel misunderstood. Future research, however, will have to clarify the causal relationship between discordant perceptions, emotional social support, and the level of understanding and misunderstanding at the interpersonal and societal levels. Hatchett et al. (13) provided a substantial discussion of this issue.

The relatively small sample size and exclusively female composition of the sample with RA may limit the generalization of these results to broader populations with RA. Although nearly 75% of persons diagnosed with RA in the United States are women (1) and the demographic profile of our sample is consistent with that reported in other RA studies (1,41), we note that very little research has explored gender differences in psychosocial adjustment to RA. Although our results are similar to those found in another study of perceived expectations among male patients with coronary artery disease (22), future research is necessary to ascertain such differences in the RA context. Also, the cross-sectional nature of this study does not permit analyses of alternative explanations of the relationship between perceived expectations and adjustment. Prospective experimental research will help to demonstrate whether patients' discordant perceptions lead to poorer adjustment or whether poorer adjustment leads to patients distorting their perceptions and inabilities to meet their spouses' demands. However, in this study, patients' perceived expectations corresponded with the actual demands and expectations of spouses, suggesting an objective basis for their perceptions. Another limitation suggests that negative affect may explain the relation between perceived expectations and psychosocial distress. Yet, in other studies, our use of three different scales of pessimism (13), neuroticism, (40) and negative affect (42,43) with three different chronic disease samples has not accounted for the relationship between perceived expectations and psychosocial distress.

Despite these limitations, we also note important strengths of the study. First, interpersonal expectations seem to capture aspects of both supportive and problematic social relations, even though the latter had low reliability and was unrelated to depressive symptoms. In a study of dialysis patients, Symister and Friend (42) also observed low reliability with a widely used scale of negative interactions. In our study, the observed low reliability can potentially be explained as a function of the relative infrequency of problematic interactions between patients and spouses (indicated by low mean scores) and by the relatively small number of items on the Positive and Problematic Support Scale that assess problematic interactions. It appears that our scale of perceived expectations about specific illness-related cognitions is robust: It achieved reasonable reliability (.93), showed convergent validity with both social support (r = -.64) and problematic relations (r = .40), and was associated with the BDI (r = .45). Another strength of the study is that data were gathered from multiple sources (i.e., patients, physicians, and spouses) that quantitatively corroborate the phenomenological experiences regarding disease status and perceptions of functional abilities for patients that have primarily been supported by anecdotal evidence in previous qualitative and ethnographic studies (17,44). This convergence suggests that perceptions regarding the object of judgment (in this case, RA and its symptoms) do indeed play a significant role in characterizing the relationship between patients and their spouses.

A prominent contribution of this study is the development of an instrument that assesses the distinct illness perspective of the person with RA and that permits focus on how specific disease-related characteristics (e.g., pain, fatigue, and impairment) are experienced in the context of social relationships. The Patient Expectations Scale makes explicit the specific interpersonal cognitions and feelings (reflected by the perceived expectations items) about the object of judgment (e.g., pain) but also includes the synthesized cognitive and emotional elements of social interactions, reflected phenomenologically in generalized reports of feeling misunderstood. The emphasis on illness-specific elements of interpersonal relationships may yield a deeper and more nuanced understanding of the interpersonal processes that predict adjustment for patients with RA and their families. The Patient Expectations Scale also has utility for psychosocial interventions; it identifies some of the specific problems that define the interpersonal relationships of patients in adjusting to their illness and provides a clearer picture of the interpersonal aspects that need to be modified to reduce discrepant perceptions. Future research should continue to rigorously explore the cognitive basis of emotional social support and identify precise mechanisms through which experiential aspects of RA are likely to lead to conflicting interpersonal expectations.

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APPENDIX

These items refer to feelings experienced by people with rheumatoid arthritis (RA) with regard to their spouse or partner. Please choose the number that corresponds to how you feel using this scale:

- 1 = Strongly Agree; 2 = Disagree; 3 = Somewhat Agree; 4 = Agree; 5 = Strongly Agree
- 1. I sometimes think that my spouse/partner expects me to take more responsibility for my RA than I can manage.
- 2. I sometimes feel frustrated when my spouse/partner does not understand how difficult it is for me to deal with my RA.*
- 3. I sometimes feel angry when my spouse/partner doesn't understand how much rest I need.*
- 4. I'm doing the best I can, but sometimes I think my spouse/partner does not understand what it is like to live with RA.*
- 5. I sometimes feel that my spouse/partner expects me to cope much better with my RA than I actually can.
- 6. Sometimes I feel that my spouse/partner expects that I can do much more around the house than I really can (housework, yard work, errands).
- 7. At times I feel frustrated when my spouse/partner expects me to be more physically active than I'm capable of being.

- 8. I get disturbed when my spouse/partner expects me to take medicine that makes me feel unpleasant or sick.
- 9. I sometimes feel that my spouse/partner expects me to cope with many more social activities than I actually can (recreation, travel, shared activities).
- 10. I feel upset at times when my spouse/partner doesn't recognize how ill I really am.*
- 11. Sometimes I think my spouse/partner expects me to be more cheerful and positive than I can manage.
- 12. I sometimes feel angry when my spouse/partner doesn't notice the RA symptoms I experience.*
- 13. I sometimes get frustrated when my spouse/partner assumes that I should be able to easily carry out everyday activities which I have difficulty with (work, travel, shopping).
- 14. My spouse/partner has difficulty tolerating my RA.
- 15. I feel upset sometimes when my spouse/partner doesn't understand that I can't always attend planned events when I suddenly don't feel well.*
- 16. At times, I think that my spouse/partner expects me to be more hopeful about the future than I can right now.

Note. Items marked with an asterisk assess perceived misunderstanding.