

# Dyadic Goal Appraisal During Treatment for Infertility: How Do Different Perspectives Relate to Partners' Adjustment?

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## Abstract

**Background** Infertility often is a dyadic stressor that constitutes blockage of a major life goal.

**Purpose** This study's primary aims were to examine heterosexual partners' goal appraisals during treatment for infertility and to test whether the direct effects of and interactions between partners' goal-related perceptions were associated with each partner's adjustment.

**Method** Women ( $n=37$ ) receiving fertility treatment and their male partners ( $n=37$ ) completed measures of goal appraisal and psychological adjustment.

**Results** Partners did not differ on ratings of the importance of the goal of parenthood, but women indicated lower perceived chance of becoming pregnant and higher perceived goal blockage than their partners. Goal appraisals were moderately correlated between partners and uncorrelated with the number of treatment procedures undergone by the couple. Women reported greater depressive symptoms, more infertility-specific thought intrusion, and lower positive states of mind than their partners. Women's appraisal of greater

likelihood of becoming pregnant was psychologically protective, but greater perceived likelihood of becoming pregnant reported by their partners was associated with women's negative psychological adjustment.

**Conclusion** Examining the associations between couples' goal appraisals and psychological adjustment may aid in developing targeted interventions to promote psychological adjustment to infertility. The small sample may have prevented identifying interactions between partners' goal assessment measures.

**Keywords** Goal appraisal · Infertility · Couple · Dyadic stressor · Psychological adjustment

## Introduction

The experience of infertility can constitute a profound blockage of a central life goal. Research in both infertile individuals and other samples has suggested that for individuals confronting blocked goals, disengagement from the goal and reengagement in new or existing goals are psychologically and physiologically adaptive self-regulation strategies [1–10]. In infertile couples, appraisal of the extent of goal blockage (i.e., uncontrollable or untreatable barriers to becoming pregnant), perceived likelihood of achieving a specific goal (e.g., carrying to term), and the perceived importance of the parenthood goal may be key factors in predicting how individuals respond to the blocked goal of biological parenthood. An individual's adjustment also may be associated with his or her partner's goal appraisal, as partners are responding to the blockage of a mutual goal. In addition, the interactions between partners' goal appraisals may be salient for psychological health, such that the

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relationship between goal appraisal and adjustment may vary as a function of the goal appraisal of an individual's partner. The primary goals of the current study are to examine: (1) congruence among partners in goal importance ratings, perceived goal blockage, and attainability and (2) direct effects and interactional effects of self and partner goal appraisals on positive and negative psychological adjustment in couples experiencing infertility.

Reviewing the literature on interpersonal influences on goals, Fitzsimmons and Finkel [11] note that research on how interpersonal processes influence people's self-regulation emerged only in the past decade. Very little research addresses how interpersonal processes influence the monitoring of goal progress and subsequent adjustment to goal blockage. Infertility provides an excellent context for examining goal blockage in couples. Clark and colleagues [12] noted that “the dilemma of being caught between goal-fulfillment strivings and acceptance of one's goal blockage or permanent infertility may be the most stressful aspect of coping with infertility” (p. 166).

Extent of partners' similarity on perceptions of goal blockage, goal attainability, and goal importance requires study, as does whether individuals' goal appraisals and the appraisals of their partners are related to psychological adjustment. Benyamini, Gozlan, and Kokia [13] state that, “Among couples undergoing infertility treatments, spouse perceptions and the extent of congruence between partners in their perception of the fertility problem are especially important due to the nature of the stressor” (p. 2). Kowalcek, Kasimzade, and Huber [14] found that there were no differences in how women and men assessed their likelihood of becoming pregnant following in vitro fertilization, but that both women and men overestimated their chances of success. How appraisals related to psychological adjustment was not assessed. In a sample of 76 women and 54 men, Stanton, Tennen, Affleck, and Mendola [15] found that 61% of women and 49% of men reported that infertility threatened central life goals. Men's rating of infertility-specific threat was not related to their psychological adjustment, whereas women who perceived greater threat had greater distress. Thus, the association between threat appraisals and adjustment was stronger for women. The study did not assess whether individuals' distress was related to their partners' goal-related appraisals.

Do partners differ in their appraisals of the goal of biological parenthood? We predicted that partners' perceptions of goal blockage and perceived chance of pregnancy would be correlated, because partners are likely to share medical information from clinicians regarding probability of treatment success. We hypothesized that partners' goal importance would be less strongly correlated, as partners may differ on the emphasis that they place on the goal of biological parenthood in relation to goals in other domains. Some

previous research has indicated that women typically report stronger wishes for children, which may be in part a product of perceived and experienced societal pressures [16].

Is an individual's adjustment to infertility related to his or her goal appraisals, as well as his or her partner's goal appraisals? We hypothesized that psychological adjustment would be related to both individuals' and partners' goal appraisals. We specifically selected one measure of general adjustment (i.e., depressive symptoms), one measure of infertility-specific adjustment (i.e., infertility-specific intrusive thoughts), and one measure of positive adjustment (i.e., positive states of mind) as the dependent variables of interest, as previous research has indicated that goal-related variables may have unique relationships to different types of adjustment [6, 9].

We operationalized actual goal blockage as the number of unsuccessful treatment attempts undergone by the couple and assessed perceived goal blockage by asking participants how blocked they felt in their progress towards biological parenthood. We predicted that greater actual and perceived goal blockage both would be associated with worse adjustment and that higher perceived chance of pregnancy would be related to better adjustment. We hypothesized that greater goal importance in the absence of goal progress would be associated with worse adjustment.

Does the relationship between goal appraisal and adjustment vary as a function of the goal appraisal of the individual's partner? We predicted that congruent perceptions of goal blockage and chance of becoming pregnant would be associated with positive adjustment for both women and men, as congruent perceptions may minimize disagreement on treatment decisions and allow individuals to predict their partners' response to treatment failure and respond effectively.

Finally, do the relationships between appraisals and adjustment vary for women and men? Based on previous research [15], we hypothesized that the relationships between goal appraisals and adjustment would be stronger for women than for men. Women in this sample were more likely than their partners to be undergoing medical treatments and may be closely monitoring their bodies for signs of goal progress. In summary, we predicted that individuals' psychological adjustment to infertility would be significantly associated with their own goal appraisals, their partners' goal appraisals, and the interaction between individuals' own goal appraisals and those of their partners, and that these relationships would be stronger for women than for men.

To address these research questions, we tested three models [17] for the association of goal assessment and adjustment: an individual model (assessing the relationship between one's own goal appraisals and psychological adjustment), partner main effect models (assessing the relationship between one's partner's perceptions and one's own adjustment), and a partner interaction model (assessing

the relationship of the interaction between couples' appraisals and one's adjustment). Increasingly, studies are demonstrating the value of examining dyadic appraisal and coping in the context of infertility [13, 18].

## Method

### Sample

Recruitment was conducted in a fertility clinic at an academic medical center in the Midwest. Participants were eligible if they were seeking fertility treatment and able to read and write in English. The average age of women was 32.17 years ( $SD=5.14$ , range=20–44), and the average age of men was 33.54 ( $SD=6.10$ , range=20–47). On average, couples had been trying to get pregnant for more than 2 years ( $M=25.16$  months,  $SD=20.98$ , range=0–96) prior to seeking fertility treatment. The average duration of fertility treatment was 17.19 months ( $SD=18.84$ , range=0–96). Demographic and fertility-related characteristics for the sample are presented in Table 1.

Women ( $n=112$ ) meeting the eligibility criteria were approached in the fertility clinic waiting room by the second author (JTW) and invited to participate in a study examining “how patients who have been diagnosed with fertility problems learn to deal with that experience.” Ninety-seven women elected to participate, ten declined, and five consented but did not complete the initial

questionnaire (T1). Results specific to the 97 women participants are reported elsewhere [6]. Forty-two male partners attending appointments with their wives were asked to participate in the component of the study that focused on partners. Five men declined to participate, citing lack of time (four men) or lack of interest (one man). Women with partners who participated did not differ from women who participated alone on demographic variables (age, years of education, years married), psychological adjustment variables (depressive symptoms, infertility-specific thought intrusions, and positive states of mind), and goal appraisal variables (goal importance, perceived goal blockage, or perceived chance of becoming pregnant). After providing written informed consent, participants completed questionnaires independently in a quiet room in the clinic. The two clinic physicians provided prior approval for their patients to be approached, and they were unaware of whether patients agreed to participate. Questionnaires were completed by both partners in 37 couples, and their data were included in analyses.

### Measures

*Goal importance* was measured by two items: “It is vital to have a child” and “Becoming a parent is the most important goal in my life.” Items were answered on a 1–7 scale from *completely disagree* to *completely agree* and were summed to create a measure of goal importance.

*Goal blockage* was assessed by a self-report item (“How blocked do you feel in your goal of becoming a parent?”) answered on a 1–7 scale from *not blocked* to *completely blocked*, termed Perceived Goal Blockage. Partners were also asked to report the number of unsuccessful treatment cycles the participant or his or her partner had undergone, termed Actual Goal Blockage.

*Likelihood of becoming pregnant* was assessed by the self-report item, “How likely do you think it is that you (or your partner) will become pregnant?” which was answered from 0% to 100%.

*Depressive symptoms* were assessed with the 20-item Center for Epidemiologic Studies Depression Scale [19, 20]. This scale has good internal consistency with both clinical and general adult populations ( $\alpha=.90$  and  $.85$ , respectively; [20]).

*Infertility-specific thought intrusion* was assessed using the 7-item intrusion subscale of the Impact of Event Scale [21]. Participants were asked how frequently each item was true for them with regard to their experience of fertility problems during the past week (0=not at all, 5=often). A sample item is, “Other things kept making me think about it.” This scale has adequate internal consistency ( $\alpha=.78$  for the intrusion subscale) and high test–retest reliability ( $r=.87$ ; [21]).

*Positive states of mind* were assessed using the 6-item Positive States of Mind Scale [22]. This measure taps

**Table 1** Demographic and fertility-related characteristics by gender

	Women ( $n=37$ )	Men ( $n=37$ )
Age (years), $M$ ( $SD$ )	32.17 (5.14)	33.54 (6.10)
Ethnicity, $n$ (%)		
Caucasian	25 (67.6%)	24 (64.9%)
African American	7 (18.9%)	9 (24.3%)
Latina	1 (2.7%)	1 (2.7%)
Native American	1 (2.7%)	0 (0.0%)
Other	3 (8.1%)	3 (8.1%)
Education (years), $SD$	14.70 (2.46)	15.22 (2.92)
Children, $n$ (%)		
Yes	14 (38%)	13 (35%)
No	23 (62%)	24 (65%)
Miscarriage experienced, $n$ (%)		
Yes	8 (24.2%)	
No	25 (75.8%)	
Months trying to get pregnant before treatment	25.16 (20.98)	
Duration of treatment (months), $M$ ( $SD$ )	17.19 (18.84)	
Number of unsuccessful treatment procedures, $M$ ( $SD$ )	3.38 (3.19)	

participants' current life satisfaction and ability to experience positive states such as productivity, pleasure, relaxation, and connection to others. The scale has a Cronbach  $\alpha$  of 0.77, is positively correlated with the Vigor subscale of the Profile of Mood States, and is negatively correlated with the negative mood states on the POMS, the Taylor Manifest Anxiety Scale, and the Presumptive Stress Scale [22].

### Statistical Analyses

Paired *t* tests were conducted to assess for gender differences on psychological adjustment variables and goal appraisal variables. Bivariate correlations between goal appraisals and psychological adjustment variables were calculated. *t* tests,  $\chi^2$  (for categorical variables), and correlations (for continuous variables) with the psychological adjustment variables were used to select demographic (i.e., age, years of education, ethnicity coded as Caucasian [0] and minority [1], and whether the couple had any children) and infertility-related covariates (i.e., number of unsuccessful treatment attempts, number of months trying to conceive before receiving treatment, number of months in treatment, and whether the couple had experienced a miscarriage) for use in primary regression analyses. Regression models for women and men were conducted separately for each of the three dependent variables (depressive symptoms, infertility-specific thought intrusion, and positive state of mind) regressed on the goal assessment measures (percent chance of becoming pregnant, perceived goal blockage, and goal importance). Covariates were entered in step 1, individuals' goal assessments were entered in step 2, partners' goal assessments were entered in step 3, and the interactions between women's and men's goal assessments were entered in step 4.

## Results

### Descriptive Statistics

Descriptive data and internal reliability estimates for each goal assessment indicator and psychological adjustment measure are summarized in Table 2. Significant gender differences emerged on paired *t* tests for depressive symptoms, thought intrusion, and positive states of mind, such that women reported worse psychological adjustment than their partners across all three indicators. Women's mean CES-D scores were above 16, which is the cutoff suggestive of clinical depression. Paired *t* tests were conducted to examine whether partners differed in their appraisals of the goal of biological parenthood. Women reported lower perceived chance of becoming pregnant and

greater perceived goal blockage, but partners did not differ on goal importance.<sup>1</sup>

Women's perceived chance of becoming pregnant was moderately and negatively correlated with their perceived goal blockage ( $r=-.37, p<.05$ ) and uncorrelated with goal importance ( $r=.07, p=.71$ ). For men, perceived chance of becoming pregnant was moderately and negatively correlated with their perceived goal blockage ( $r=-.38, p<.05$ ) and positively correlated with goal importance ( $r=.56, p<.01$ ). For both women and men, perceived chance of becoming pregnant and goal blockage were uncorrelated with actual goal blockage, which was operationalized as number of discrete unsuccessful treatment cycles ( $r=-.08, p=.64$  for women's perceived chance of becoming pregnant and  $r=.12, p=.50$  for women's goal blockage;  $r=-.19, p=.26$  for men's perceived chance of becoming pregnant and  $r=.20, p=.26$  for men's goal blockage).

Correlations among the goal appraisal measures and psychological adjustment variables for partners are summarized in Table 3. Depressive symptoms and positive states of mind (but not infertility-specific thought intrusion) were moderately correlated within couples, as were each of the goal assessment variables (percent chance of becoming pregnant, perceived goal blockage, and goal importance).

### Examination of Individual Model, Partner Main Effect Models, and Partner Interaction Model Using Hierarchical Regression

To determine relevant covariates for regression analyses, *t* tests,  $\chi^2$ , and correlations were conducted with the demographic, infertility-related, and psychological adjustment variables. For women, ethnic minority status was significantly related to fewer depressive symptoms ( $t[34]=-2.32, p<.05$ ) and having at least one child was significantly related to greater positive states of mind ( $t[35]=3.12, p<.01$ ). For men, years of education ( $r=.40, p<.05$ ) and ethnic minority status ( $t[35]=2.69, p<.05$ ) were related to greater positive states of mind, and younger age ( $r=-.33, p=.05$ ) was associated with lower positive states of mind.

<sup>1</sup> Additional analyses were conducted to assess for group differences between women with children ( $n=14$ ) and women without children ( $n=23$ ), as well as group differences between men with children ( $n=13$ ) and men without children ( $n=24$ ). Women with and without children did not differ on age, years of education, minority status, depressive symptoms, infertility-specific thought intrusion, goal importance, perceived goal blockage, or perceived chance of becoming pregnant. On average, women with children were married longer ( $t[33]=2.16; p<0.05$ ) and reported higher positive states of mind ( $t[35]=3.12, p<.01$ ) than women without children. Men with children did not differ from men without children on any of the demographic variables, psychological adjustment variables, or goal appraisal variables. The absence of differences on variables between groups with and without children runs counter to some previous studies; however, ability to detect group differences was limited by sample size.

**Table 2** Descriptive statistics and differences in goal measures and psychological adjustment variables by gender

	Women (n=37)			Men (n=37)			Paired samples <i>t</i> test
	Mean	SD	$\alpha$	Mean	SD	$\alpha$	
% Chance of pregnancy	62.00	29.29	–	72.16	24.14	–	–1.90*
Perceived goal blockage	4.11	1.78	–	3.47	1.87	–	2.27*
Goal importance	5.39	1.63	.90	5.05	1.65	.80	1.09
CES-D	18.82	12.95	.93	8.66	7.09	.86	5.18***
INT	12.50	8.55	.83	3.72	4.07	.85	5.74***
PSOM	14.41	3.31	.86	15.78	2.06	.71	–2.63*

*CES-D* Center for Epidemiologic Studies-Depression Scale, *INT* infertility-specific thought intrusion as measured by IES (intrusion subscale), *PSOM* Positive States of Mind Scale

\* $p < .05$ , \*\*\* $p < .001$

To examine whether an individual's adjustment to infertility was related to his or her goal appraisals, dependent variables were regressed on the goal assessment measures. For both women and men, greater own perceived goal blockage was associated with greater depressive symptoms (women:  $\beta = .37$ ,  $p < .05$ ; men:  $\beta = .35$ ,  $p < .05$ ), but their partner's perceived goal blockage and the interaction between partners' perceived goal blockage were unrelated to their own adjustment. For men, their own higher goal importance was associated with greater positive states of mind ( $\beta = .32$ ,  $p < .05$ ). Results were not significant for the psychological adjustment variables regressed on goal importance for women.

As reported in Table 4, for women, there were significant main effects for both women's and men's perceived chance of becoming pregnant for all three dependent variables. Women's higher perceived chance of becoming pregnant was associated with fewer depressive symptoms, less infertility-specific thought intrusion, and greater positive states of mind, but men's higher perceived chance of becoming pregnant was associated with women's greater

depressive symptoms, greater thought intrusion, and fewer positive states of mind. The partner main effects models accounted for 32% of the variance in women's depressive symptoms, 37% of the variance in women's infertility-specific thought intrusion, and 35% of the variance in women's positive states of mind. Results were not significant for the psychological adjustment variables regressed on perceived chance of becoming pregnant for men.

## Discussion

This study's primary findings suggest that in the context of infertility, women's appraised greater likelihood of becoming pregnant is protective, whereas their partners' greater appraised chances of becoming pregnant are associated with negative adjustment for the female partner. Partner main effect models with women's and men's perceptions about the likelihood of the couple becoming pregnant account for 32–37% of the variance in women's depressive symptoms, infertility-specific thought intrusion, and positive states of

**Table 3** Correlations between partners (n=37) goal-related and psychological variables

Women	Men					
	Perceived % chance of pregnancy	Perceived goal blockage	Goal importance	CES-D	INT	PSOM
% Perceived chance of pregnancy	.38*	–.39*	.19	–.16	–.18	.29
Perceived goal blockage	–.16	.48**	–.06	.35*	.05	–.37*
Goal importance	.51**	–.21	.34*	–.22	.28	.29
CES-D	.39*	.25*	.06	.45*	.13	–.43**
INT	.41*	–.06	.22	.15	.08	–.14
PSOM	–.37*	–.17	–.14	–.32	.00	.37*

*CES-D* Center for Epidemiologic Studies-Depression Scale, *INT* infertility-specific thought intrusion as measured by IES (intrusion subscale), *PSOM* Positive States of Mind Scale

\* $p < .05$ , \*\* $p < .01$

**Table 4** Women's psychological adjustment ( $n=37$ ) as related to women's and men's goal attainability perception

DV	Step	IV	Adj $R^2$ $\Delta$	$B$	SE ( $B$ )	$\beta$ (final)
CES-D	1	Ethnic minority status	.11*	-4.16	4.20	-.16
	2	Women's % chance of pregnancy	.04	-.19	.07	-.43*
	3	Men's % chance of pregnancy	.21**	.26	.09	.50**
	4	Interaction, women's $\times$ men's % chance	.01	.00	.00	-.11
INT	1	Women's % chance of pregnancy	.05	-.15	.04	-.49**
	2	Men's % chance of pregnancy	.33**	.20	.05	.57**
	3	Interaction, women's $\times$ men's % chance	.05	.00	.00	-.23
PSOM	1	Children	.20**	2.73	.98	.43**
	2	Women's % chance of pregnancy	.06	.04	.02	.37*
	3	Men's % chance of pregnancy	.13*	-.05	.02	-.36*
	4	Interaction, women's $\times$ men's % chance	.02	.00	.00	.16

Standardized beta weights are displayed for the final model.  $R$  reported is adjusted  $R^2$

*CES-D* Center for Epidemiologic Studies-Depression Scale, *INT* infertility-specific thought intrusion as measured by IES (intrusion subscale), *PSOM* Positive States of Mind Scale

\* $p < .05$ , \*\* $p < .01$

mind, over and above covariates (having another child was the only covariate significantly associated with women's positive states of mind in the final regression model). Overall, women demonstrated poorer psychological adjustment to infertility, which is congruent with other studies indicating greater psychological distress in women than in men in response to infertility [3, 18, 23].

As predicted, partners' ratings of goal blockage and perceived chance of becoming pregnant were correlated, but contrary to hypothesis, goal importance was also moderately correlated, and partners did not differ significantly on their rating of goal importance. Although other studies have found that women report higher goal importance than men [16], the men who participated in this study may have been particularly invested in the goal of biological parenthood, as they were present with their wives during medical appointments and agreed to participate in the study.

Although goal appraisal variables were all moderately correlated between partners, the absolute values for perceived goal blockage were higher for women, and women's perceived chance of becoming pregnant was lower than their partners'. These findings are congruent with other recent research that indicates that women perceive infertility more negatively (e.g., having more serious consequences) than their male partners [13]. Women may have perceived greater goal blockage and lower likelihood of pregnancy than their partners because they may receive more direct negative feedback about their goal progress in the form of negative pregnancy tests, menstruation, and direct communication from their physician. In contrast, men may experience such feedback through secondhand information from their partner, and it may have a weaker effect on their goal appraisals.

Surprisingly, women's and men's goal assessments were not correlated with actual goal blockage (the number of unsuccessful treatment cycles undergone by the couple). This finding is consistent with the full sample of 97 women, for whom perceived goal blockage was uncorrelated with actual goal blockage [6]. Verhaak, Smeenk, Evers, et al. [24] argue that the stress of threat of failure (i.e., perceived goal blockage) is distinctive from the stress of undergoing medical treatments (i.e., actual goal blockage) and that these two components of infertility have different psychological sequelae. How individuals modify goal appraisals following feedback on goal progress (e.g., failed treatment attempts) remains to be explored.

Consistent with our hypothesis, greater goal blockage was associated with greater depressive symptoms for both women and men. Greater perceived goal blockage in the context of continued treatment and goal pursuit may foster a sense of hopelessness and futility that is characteristic of depression. It is unexpected that greater goal blockage was not associated with infertility-specific thought intrusion for women and men. It is important to note that these data are cross-sectional, and causality cannot be inferred. Goal appraisals may be influenced by mood symptoms, and longitudinal data are necessary to determine whether goal appraisals predict a change in mood symptoms or mood symptoms predict a change in goal appraisals.

Surprisingly, men's greater goal importance was associated with greater positive states of mind. Perhaps being more invested in the goal of biological parenthood gives men a sense of purpose and makes participation in the treatment process more meaningful. In contrast, men who are less

invested in the goal of parenthood may view additional treatments as imprudent, which may cause conflict among spouses and reduced positive interactions. This finding merits further study.

The individual model of one's own appraisals being associated with one's adjustment was applicable for men, whereas the partner main effect model was applicable for women. Thus, women's adjustment was related to both their own goal appraisals as well as their partners', whereas men's adjustment was related solely to their own goal appraisals. This finding is in line with other work that suggests that women are more affected by their partners' perceptions of infertility than men, whose distress tends to be primarily influenced by their own perceptions of infertility [13].

A significant limitation of this study was the small sample size, which may have prevented identifying significant interactions between women's and men's goal measures. However, the consistent finding across all three dependent variables that greater perceived chance of becoming pregnant is protective for women, but their partners' high rating of attainability is associated with women's negative adjustment, deserves further exploration. Why is this particular goal variable the most salient predictor of women's psychological adjustment? One hypothesis is that physicians typically offer statistics about the percent chance that the couple will conceive following a specific infertility procedure. While each partner may receive the same medical information, goal perceptions were only moderately correlated between partners, indicating significant individual variability in applying physicians' feedback to goal assessment. If a woman perceives that her partner is overly confident about her becoming pregnant, she may experience that optimism as invalidating. She may feel that he does not fully appreciate the demands of a treatment cycle or the difficulty of conceiving. His efforts to exude confidence, as is often his socially prescribed role, may be received as a failure to understand the gravity of the situation. Regardless of her own expectations about conception, this incongruence between partners may leave the female partner feeling isolated in her concern and may be related to her greater depressive symptoms, thought intrusion, and decreased positive mood. It is also possible that his confidence prompts her self-doubt and fear regarding her ability to get pregnant. Other studies have found significant interactions between women's and men's perceptions of infertility that support the hypothesis that women whose partners perceive infertility as less serious than their wives are prone to distress [13].

An alternative interpretation is that one partner's psychological adjustment influences their partner's goal appraisal. For example, if a husband perceives that his wife is despondent about her chances of becoming pregnant, he might adopt the role of “cheerleader” and report optimistic

appraisals. Such a scenario highlights the transactional qualities of dyadic appraisal and adjustment [13, 17]. Future studies should include measures of perceptions of partners' goal assessments and psychological adjustment to examine how individual goal assessments and psychological adjustment are influenced by perceptions of partners' appraisals. Partners may adjust their own appraisals based upon how they believe their partner is assessing and responding to infertility.

Research on dyadic goal adjustment responses to infertility should incorporate diverse groups to expand generalizability and to examine potential differences across subsamples. Although no statistically significant differences were identified between women whose partners elected or declined to participate in the study, there may be unmeasured, unique characteristics of men electing to participate in the study and their relationships with their partners that limit the generalizability of these findings. Relative to those who declined participation, men who participated in the study may have had more congruent goal appraisals with their partners, higher relationship satisfaction, or perhaps offered more support to their partners through the treatment process. Measures of relationship satisfaction and other dyadic variables should be assessed in future studies. Longitudinal studies with larger samples are necessary to examine these processes adequately, but the current study makes an important contribution by highlighting key questions and by identifying particular variables of interest, such as perceived likelihood of becoming pregnant.

Clinical implications of the findings include the value of assessing goal attainability appraisals in partners receiving treatment for infertility and discussing the impact that goal assessment congruence or discrepancy may have on individuals' cognitions and mood. Discussing with a woman how her expectations for fertility treatments relate to her well-being is important, as well as concurrently discussing her partner's appraisals and how these may influence her adjustment. Facilitating communication between partners about their expectations for goal progress may aid in developing congruent appraisals that could lead to attuned responses if treatment fails.

These findings support the theory that goal appraisals are salient factors that predict psychological adjustment to infertility treatment. Broadening the assessment of goal-related appraisals from the intrapersonal level to the interpersonal level is an important step that provides insights on the fertility experience and explains significant variance in individuals' adjustment to infertility. Understanding the relationships between partner goal appraisals and adjustment has the potential to inform interventions that may diminish distress and improve marital relationship quality during the experience of treatment for infertility.

## References

1. Heckhausen J, Wrosch C, Schulz R. A motivational theory of life-span development. *Psychol Rev.* 2010;117:32–60.
2. Kraaij V, Garnefski N, Schroevers MJ. Coping, goal adjustment, and positive and negative affect in definitive infertility. *J Health Psychol.* 2009;14:18–26.
3. Kraaij V, Garnefski N, Schroevers MJ, Weijmer J, Helmerhorst F. Cognitive coping, goal adjustment, and depressive and anxiety symptoms in people undergoing infertility treatment: a prospective study. *J Health Psychol.* 2010;15:876–86.
4. Miller GE, Wrosch C. You've gotta know when to fold 'em: goal disengagement and systemic inflammation in adolescence. *Psychol Sci.* 2007;18:773–7.
5. Suikkari A, Salmela-Aro K. Letting go of your dreams—adjustment of child-related goal appraisals and depressive symptoms during infertility treatment. *J Res Pers.* 2008;42:988–1003.
6. Thompson EH, Woodward JT, Stanton AL. Moving forward during major goal blockage: situational goal adjustment in women facing infertility. *J Behav Med.* 2011 (in press). Available from <http://www.ncbi.nlm.nih.gov/pubmed/21222027>. Accessed 2011 Feb 14.
7. Wrosch C, Miller GE, Scheier MF, de Pontet SB. Giving up on unattainable goals: benefits for health? *Pers Soc Psychol Bull.* 2007;33:251–65.
8. Wrosch C, Scheier MF, Carver CS, Schulz R. The importance of goal disengagement in adaptive self-regulation: when giving up is beneficial. *Self and Identity.* 2003;2:1–20.
9. Wrosch C, Scheier MF, Miller GE, Schulz R, Carver CS. Adaptive self-regulation of unattainable goals: goal disengagement, goal reengagement, and subjective well-being. *Pers Soc Psychol Bull.* 2003;29:1494–508.
10. Wrosch C. Self-regulation of unattainable goals and pathways to quality of life. In: Folkman S, editor. *The Oxford Handbook of Stress, Health, and Coping.* New York: Oxford University Press; 2001. p. 319–33.
11. Fitzsimons GM, Finkel EJ. Interpersonal influences on self-regulation. *Curr Dir Psych Sci.* 2010;19:101–5.
12. Clark LF, Henry SM, Taylor DM. Cognitive examination of motivation for childbearing as a factor in adjustment to infertility. In: Stanton AL, Dunkel-Schetter C, editors. *Infertility: perspectives from stress and coping research.* New York: Plenum Press; 1991. p. 157–80.
13. Benyamini Y, Gozlan M, Kokia E. Women's and men's perceptions of infertility and their associations with psychological adjustment: a dyadic approach. *Br J Health Psychol.* 2009;14:1–16.
14. Kowalcek I, Kasimzade T, Huber G. Expectations for success in fertility treatment involving assisted reproduction. *Arch Gynecol Obstet.* 2003;268:78–81.
15. Stanton AL, Tennen H, Affleck G, Mendola R. Cognitive appraisal and adjustment to infertility. *Women Health.* 1991;17:1–15.
16. van Balen F, Trimbos-Kemper TC. Involuntarily childless couples: their desire to have children and their motives. *J Psychosom Obstet Gynaecol.* 1995;16:137–44.
17. Berghuis JP, Stanton AL. Adjustment to a dyadic stressor: a longitudinal study of coping and depressive symptoms in infertile couples over an insemination attempt. *J Consult Clin Psychol.* 2002;70:433–8.
18. Peterson BD, Pirritano M, Christensen U, Schmidt L. The impact of partner coping in couples experiencing infertility. *Hum Reprod.* 2008;23:1128–37.
19. Radloff LS. The CES-D Scale. *Appl Psychol Meas.* 1977;1:385–401.
20. Radloff LS. The use of the Center for Epidemiologic Studies Depression Scale in adolescents and young adults. *J Youth Adolesc.* 1991;4:149–66.
21. Horowitz M, Wilner N, Alvarez W. Impact of Event Scale: a measure of subjective stress. *Psychosom Med.* 1979;41:209–18.
22. Horowitz M, Adler N, Kegeles S. A scale for measuring the occurrence of positive states of mind: a preliminary report. *Psychosom Med.* 1988;50:477–483.
23. Stanton AL, Woodward JT. Infertility. In: Ayers S, Baum A, McManus C, Newman S, Wallston K, Weinman J, West R, editors. *Cambridge handbook of psychology, health, and medicine.* 2nd ed. Cambridge: Cambridge University Press; 2007. p. 756–8.
24. Verhaak C, Smeenk J, Evers A, Kremer J, Kraaimaat F, Braat D. Women's emotional adjustment to IVF: a systematic review of 25 years of research. *Hum Reprod Update.* 2006; 13:27–36.