

# Differences between husbands' and wives' approach to infertility affect marital communication and adjustment

Lauri A. Pasch, Ph.D.,<sup>a</sup> Christine Dunkel-Schetter, Ph.D.,<sup>b</sup> and Andrew Christensen, Ph.D.<sup>b</sup>

University of California, San Francisco, and University of California, Los Angeles, California

**Objective:** To test a theoretical model of the effect on marital communication and adjustment of men's and women's approach to infertility.

**Design:** A cross-sectional research design involving interviews, questionnaires, and a marital discussion task.

**Setting:** Volunteers from practices of fertility specialists.

**Patient(s):** Forty-eight couples currently seeking infertility treatment.

**Intervention(s):** None.

**Main Outcome Measure(s):** Quality of marital communication during a marital discussion task and effect of infertility on the marriage.

**Result(s):** Having children was more important to wives than husbands; wives were more involved in trying to have a baby, wanted to talk with their partner more about trying to have a baby, and experienced a greater loss of self-esteem than did their husbands. To the extent that husbands saw having children as important, were involved in trying to have a baby, or wanted to talk with their wives about trying to have a baby, the quality of marital communication when discussing infertility was less negative, and in turn, wives perceived a more positive effect of infertility on their marriage.

**Conclusion(s):** Increases in husbands' interest and involvement in fertility treatment may lead to positive changes in couple communication about infertility and to a more positive effect of infertility on the marriage. (Fertil Steril® 2002;77:1241–7. ©2002 by American Society for Reproductive Medicine.)

**Key Words:** Infertility, marital communication, marital adjustment

More so than most medical problems, infertility is truly a couples' issue. Infertility is a characteristic of the couple who is attempting pregnancy, in addition to the individual, even in cases in which only one member appears to have the biological problem. Treatment attempts require the participation of both partners. Although the infertility experience may be different for the afflicted and the nonafflicted partner, both face the loss of their parenting potential and experience the distress and life alteration associated with that loss. Because infertility affects couples as a unit, it presents unique challenges for the couple relationship (1).

Well-designed quantitative research has consistently revealed no overall reduction in relationship adjustment as a result of infertility (2, 3). However, evidence suggests that there is

substantial variability between couples in how they are affected (4). Some couples experience serious deterioration in their relationships, whereas others emerge closer and more satisfied with their relationship than before (5). An important goal for research is to identify factors associated with the development of marital problems in infertile couples, so that those at risk could be targeted for supportive interventions (1).

One potential risk factor for the development of marital problems that has been suggested in the literature is differences between partners in their approach to infertility (6–9). There is ample evidence from quantitative research that men and women approach infertility differently. These findings can be summarized into four distinct aspects of the infertility experience. First, previous research has shown

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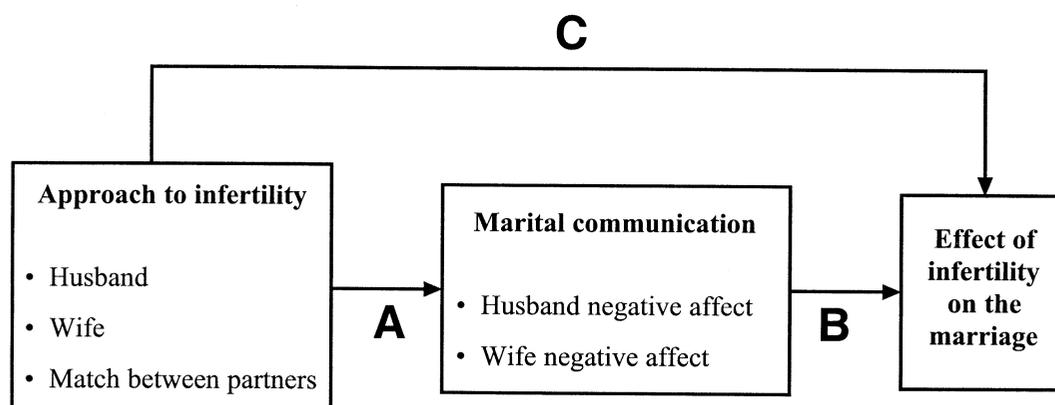
Reprint requests: Lauri  
Pasch, Ph.D., Department  
of Psychiatry, 3333  
California St., Suite 465,  
San Francisco, California  
94143-0848 (FAX: 415-  
476-7744; E-mail: pasch@  
itsa.ucsf.edu).

<sup>a</sup> Department of Psychiatry,  
University of California,  
San Francisco.

<sup>b</sup> Department of  
Psychology, University of  
California, Los Angeles.

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Theoretical model.



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that women see having children as more important than do men (10, 11). Second, women are more involved in the process of trying to have a baby than are men (11–13). For example, it has been shown that women become concerned more quickly than men when pregnancy attempts are unsuccessful, are more likely to make the decision to seek treatment, and are more likely to make decisions about which tests and treatments to try, even in the case of male-factor infertility (14, 15). Third, it has been shown that women want to talk and share their feelings about trying to have a baby more than do their partners (11). For example, Mahlstedt (7) reported that women wanted to talk with their spouses about their pain, whereas the men did not seem to want to express their concerns as openly. Fourth, women are more likely to experience emotional distress and loss of self-esteem as a result of experiencing infertility (2, 10, 12, 16, 17). How these differences may affect marital communication and adjustment has not been studied quantitatively to date.

### THE CURRENT STUDY

The current study is based on the theoretical model shown in Figure 1. Each partner’s approach to infertility is defined in terms of [1] importance of having a baby, [2] involvement in trying to have a baby, [3] desire to talk with spouse about trying to have a baby, and [4] effect of infertility on self-esteem. On the basis of previous findings, we hypothesized that wives would see having a baby as more important, be more involved in trying to have a baby, want to talk with their husbands more about trying to have a baby, and experience a greater loss of self-esteem than would their husbands.

The model proposes that the approach to infertility is

associated with the quality of marital communication (Path A). Specifically, the ways in which husbands and wives approach infertility are hypothesized to be determining factors in the quality of communication about infertility-related issues. The model also proposes that the match between partners in approach to infertility is associated with marital communication. Regarding the match between partners, we hypothesized that in general, incongruity in approach to infertility (e.g., one partner low in involvement and the other partner high) would be associated with more negative communication than would congruity (e.g., both partners high or both partners low). Although the match between partners is an intuitively appealing explanation of the development of negative communication, we thought it was important to evaluate the effect of the match between partners after taking into account the contribution of each spouse’s approach considered individually. For example, couples in which one partner is relatively uninvolved in trying to have a baby may have negative communication, regardless of the other partner’s level of involvement.

Consistent with more basic research on marital relationships (18), the model proposes that the quality of marital communication regarding the fertility problem would be associated with the overall effect of infertility on the marriage, such that couples with relatively poor communication would view the effect of infertility on their marriage more negatively (Path B).

The model further proposes that each partner’s approach to infertility, and the match between partners in the approach to infertility, would be associated with the effect of infertility on the marriage (Path C). For example, couples in which husbands are relatively uninvolved in treatment would see

infertility as having had a more negative effect on their marriage.

Finally, the model proposes that the association between partners' approach to infertility and the effect of infertility on the marriage is mediated by the quality of marital communication (Paths A→B). That is, for example, couples with incongruity in their approach to infertility would display relatively poor communication and in turn, would see infertility as having had a more negative effect on their marriage.

## MATERIALS AND METHODS

### Subjects

Subjects were 48 couples recruited from three medical practices of fertility specialists in Southern California. Informational flyers describing the study were posted in the doctors' offices. Those who indicated interest in the study were telephoned and, if they were willing and eligible, an interview was scheduled. The eligibility criteria were as follows: [1] currently trying to become pregnant with a partner and with at least a 1-year history of lack of conception; [2] no children; [3] no history of sterilization; [4] ability to speak and read English; and [5] agreement to participate by both members of the couple. Of those who initially indicated interest in the study and were eligible, 98% participated. The study received institutional review board approval, and all subjects gave informed consent.

Participants were all married, with a mean length of marriage of 5 years (range, 1–13 years). Women averaged 36.1 years of age (range, 22–46 years), men averaged 38 years of age (range, 26–52). Women were 2.1% Native American, 2.1% African American, 4.2% Asian/Pacific Islander, 6.3% Latina/Hispanic, and 85.4% White/Caucasian. Men were 6.3% Asian/Pacific Islander, 10.4% Latino/Hispanic, and 83.3% White/Caucasian. Couples reported a median joint income of \$75,000 to \$100,000, ranging from <\$25,000 to >\$150,000.

The mean length of time over which couples had already tried for pregnancy was 3.17 years (range 1–10). Current diagnoses as reported by patients included ovarian dysfunction (23%), endocrine disorder (12.6%), cervical disorders (4.2%), uterine disorders (14.6%), tubal obstruction or disorder (8.3%), endometriosis (31.3%), immunologic problems (14.6%), repeated miscarriage (6.3%), male factor (50.1%), advanced maternal age (12%), other (2%), and unknown factors (14.6%). We classified each couple into one of three categories based on their report of the nature of their fertility problem. Nineteen couples were classified as female factor only, 11 as male factor only, and 16 as joint or unknown problems.

### Procedure

Couples took part in a home interview session in which, as part of a larger study, each partner provided demographic, medical, and psychosocial questionnaire data; participated in

a one-on-one interview about his or her reactions to infertility; and participated in a 15-minute discussion task with his or her partner. For the 15-minute discussion, couples were instructed to work toward resolving an area of difficulty or tension in their relationship related to their fertility problem. Before the discussion, each partner rated a checklist of common problems faced by couples with fertility problems (e.g., deciding next steps in fertility treatment, emotional reactions to the fertility problem) in terms of how much each had created difficulty or tension in their relationship. The interviewers used these responses to help the couple identify a mutually agreed-upon topic for the discussion. The interviewers left the room during the discussion. The discussions were audiotaped and later coded for the behaviors displayed by each partner. Couples were compensated \$50 for their time.

### Measures

#### *Approach to Infertility*

Importance of having children, involvement in trying to have a baby, and desire for talking with partner about trying to have a baby were measured during the one-on-one interviews. Individuals were asked to respond to open-ended questions about each topic area and then were asked to summarize their response using a rating scale. The specific questions were: "How do you currently feel about having children?" (1 = *not interested*, 9 = *the most important thing in my life*); "How involved would you say you have been in trying to have a baby?" (1 = *not at all involved*, 9 = *extremely involved*); and "How about the two of you talking about trying to have a baby, how much do you find that you want to talk about it with your spouse?" (1 = *do not want to talk at all*, 9 = *want to talk frequently*).

To measure loss of self-esteem, we designed an 11-item questionnaire to tap the different aspects of self-esteem that could be affected by infertility. Items (e.g., "The difficulty we have had in having a child makes me feel . . . less of a (wo)man, like a failure, not normal") were rated on 9-point scales (1 = *not at all*; 9 = *very much*) and averaged for a total score. Items were generated from an analysis of descriptive and quantitative studies that reported on how fertility problems can affect self-esteem. Coefficient  $\alpha$  was .90 for women and .94 for men.

#### *Marital Communication*

The marital discussions were coded using the Couples Rating System (CRS) (19). The CRS consists of behavioral dimensions along which spouses are rated by coders on a 9-point scale according to the extent to which they display the behaviors considered representative of that dimension. Five trained coders rated both partners in all couples. Coders listened to the entire 15-minute discussion before making their ratings.

For the current study, the Negative Affect Toward Partner

dimension was used. High scores on this dimension indicate expression of hostility or contempt, moderate scores indicate irritation or anger, and low scores indicate the absence of these negative emotions. The expression of anger and hostility toward one's partner has been shown in marital research to be a major marker of problematic communication in couples (20). It has been shown to be associated with current marital satisfaction as well as with deterioration in marital satisfaction over time (18). Interobserver agreement was assessed by means of  $\alpha$  coefficients using each of the five rater's scores for the dimension. The interobserver  $\alpha$  coefficient for the Negative Affect Toward Partner dimension was .87 for women and .87 for men. The five ratings of each individual's behavior were averaged for use in all analyses.

### Effects of Infertility on the Marriage

We designed a 9-item questionnaire to assess perceived effects of infertility on the marriage in the areas of satisfaction, stability, closeness, and enjoyment. Items (e.g., "What effect has your fertility problem had on . . . how stable your marriage is, how satisfied you are with your marriage in general, how close you feel to your spouse?") were rated on 9-point scales (1 = *very negative effect*, 5 = *no change*, 9 = *very positive effect*) and averaged for a total score. The areas assessed were identified from two commonly used marital adjustment measures, the Dyadic Adjustment scale (21) and the Quality of Marriage Index (22). Coefficient alpha was .89 for women and .91 for men.

## RESULTS

### Preliminary Analyses

Descriptive statistics and paired *t*-test results for gender differences are shown in Table 1. On average, having children was very important to both husbands and wives, and both were involved in and wanted to talk about trying to have a baby. On average, individuals experienced small to moderate negative effects of infertility on self-esteem. Having children was more important to wives than to husbands. Wives were more involved in trying to have a baby, wanted to talk with their partners more about trying to have a baby, and experienced a great loss of self-esteem associated with infertility than their husbands.

On average, expression of negative affect toward partners was relatively uncommon, and husbands and wives did not differ in display of these emotions. On average, both husbands and wives saw the overall effect of infertility on their marriage as somewhat positive, with wives reporting more positive effects than husbands. Study variables were not associated with demographic variables, length of time over which couples had already tried for pregnancy, or diagnostic category.

**TABLE 1**

Descriptive statistics for study variables.

Variable	Mean (SD)		P
	Wives	Husbands	
Importance of having children <sup>a</sup>	7.57 (1.24)	6.93 (1.50)	<.05
Involvement in trying to have a baby <sup>b</sup>	8.50 (.91)	6.70 (1.99)	<.0001
Desire for talking with partner <sup>c</sup>	6.76 (1.88)	5.17 (1.92)	<.0001
Loss of self-esteem <sup>d</sup>	4.15 (1.78)	2.74 (1.73)	<.0001
Negative affect toward partner <sup>e</sup>	2.41 (1.59)	2.31 (1.72)	NS
Effect on infertility on marriage <sup>f</sup>	6.17 (1.33)	5.68 (1.26)	<.05

NS = nonsignificant statistically.

<sup>a</sup> 1 = *not interested*, 9 = *the most important thing in my life*.

<sup>b</sup> 1 = *not at all involved*, 9 = *extremely involved*.

<sup>c</sup> 1 = *do not want to talk*, 9 = *want to talk frequently*.

<sup>d</sup> Scale from 1–9, with higher scores indicating greater loss of self-esteem.

<sup>e</sup> Ratings from 1–9, with higher scores indicating more negative affect.

<sup>f</sup> Scale from 1–9, with low scores indicating negative effects and higher scores indicating positive effects.

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## Evaluation of the Theoretical Model

### Path A: Approach to Infertility and Marital Communication

Path A was tested using hierarchical multiple regression analyses shown in Table 2. To predict husbands' communication behavior, husbands' own approach to infertility was entered first, followed by their wives' approach, followed by the interaction of husbands' and wives' approaches. To predict wives' communication behavior, wives' own approach was entered first, followed by husbands' approach, followed by the interaction. The interaction term was used as a test of the unique effect of the match between partners in approach to infertility. The interaction term was expected to be significant if the effect of one partner's approach is dependent on the effect of the other partner's approach. If the interaction term was significant, then further analyses were conducted to investigate the nature of the interaction.

Husbands who saw having children as important, who were involved in trying to have a baby, and who wanted to talk with their wives about trying to have a baby expressed less negative affect during the marital communication task. Additionally, wives whose husbands were involved in trying to have a baby expressed less negative affect during the marital communication task. The extent to which husbands experienced a loss of self-esteem was not associated with either partner's behavior during the communication task.

Wives' approach to infertility was not associated with either partner's behavior during the communication task, with one exception. Husbands whose wives wanted to talk with them about trying to have a baby expressed more negative affect.

TABLE 2

Multiple regression analyses examining the association between approach to infertility and marital communication and adjustment.

Factors	Husbands						Wives					
	Negative affect			Effect of infertility on the marriage			Negative affect			Effect of infertility on the marriage		
	Change in $r^2$	$\beta$	$P$	Change in $r^2$	$\beta$	$P$	Change in $r^2$	$\beta$	$P$	Change in $r^2$	$\beta$	$P$
Importance of having children												
Wives	.06	.25	NS	.00	.01	NS	.06	.24	NS	.02	-.14	NS
Husbands	.15	-.39	.007	.02	.15	NS	.07	-.26	NS	.17	.41	.004
Wives $\times$ husbands	.02	-.16	NS	.01	.12	NS	.02	-.16	NS	.01	.12	NS
Involvement in trying to have a baby												
Wives	.01	.11	NS	.05	.21	NS	.00	.10	NS	.00	.01	NS
Husbands	.28	-.53	.0001	.01	.09	NS	.11	-.34	.02	.12	.35	.02
Wives $\times$ husbands	.07	-.28	.03	.00	.04	NS	.00	.04	NS	.02	-.16	NS
Desire for talking												
Wives	.09	.30	.03	.01	.10	NS	.00	.06	NS	.00	-.02	NS
Husbands	.10	-.31	.03	.04	.21	NS	.00	.00	NS	.09	.30	.05
Wives $\times$ husbands	.06	-.24	NS	.00	-.04	NS	.03	-.19	NS	.07	.26	NS
Loss of self-esteem												
Wives	.01	.00	NS	.00	-.06	NS	.03	.16	NS	.04	-.22	NS
Husbands	.00	.04	NS	.18	-.43	.003	.03	.17	NS	.02	-.14	NS
Wives $\times$ husbands	.04	-.20	NS	.00	.06	NS	.00	-.06	NS	.00	.01	NS

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The interaction between husbands' and wives' approach to infertility generally did not have a unique effect on behavior. Only the interaction between husbands' and wives' involvement in trying to have a baby was significant. To investigate the nature of the interaction, we formed four groups based on median splits of husbands' and wives' scores. This analysis showed that husbands expressed more negative affect when they were low in involvement in trying to have a baby and their wives were high, compared with husbands in the other three groups.

#### **Path B: Marital Communication and the Effect of Infertility on the Marriage**

Path B was tested using Pearson correlations. The extent to which husbands and wives expressed negative affect during the marital communication task was associated with wives perceiving a more negative effect of infertility on their marriage ( $r = -0.51$ ,  $P < .0001$ ,  $r = -0.57$ ,  $P < .0001$ , respectively). Neither husbands' or wives' expression of negative affect was associated with husbands' perceptions of the effect of infertility problem on the marriage ( $r = -0.12$ ,  $P = ns$ ;  $r = -0.13$ ,  $P = ns$ , respectively).

#### **Path C: Approach to Infertility and the Effect of Infertility on the Marriage**

Path C was tested using hierarchical multiple regression analyses shown in Table 2. To predict wives' perception of

the effect of infertility on the marriage, wives' own approach to infertility was entered first, followed by their husbands' approach, followed by the interaction of husbands' and wives' approaches. To predict husbands' perception of the effect of infertility on the marriage, husbands' own approach was entered first, followed by their wives' approach, followed by the interaction.

Husbands' but not wives' approach to infertility was associated with wives' perception of the effect of infertility on their marriage. Wives perceived a more positive effect to the extent that their husbands saw having children as important, were involved in trying to have a baby, and wanted to talk with their wives about trying to have a baby. The match between husbands and wives in approach to infertility was not associated with wives' perceptions of the effect of infertility on their marriage.

Only one study variable was associated with husbands' perceptions of the effect of infertility on their marriage: husbands whose own self-esteem was affected by infertility perceived a more negative effect of infertility on their marriage.

#### **Path A $\rightarrow$ B: The Mediation Model**

According to the mediational model proposed, the approach to infertility would affect the marriage by affecting the quality of marital communication. Using the recommen-

dations of Baron and Kenny (23), to test for the mediating effects of marital communication, significant associations must be shown between approach to infertility and marital communication (Path A), marital communication and the effect of infertility on the marriage (Path B), and approach to infertility and the effect of infertility on the marriage (Path C). The final test of the mediational model is to demonstrate that the association between approach to infertility and the effect of infertility on the marriage becomes nonsignificant once the effect of marital communication is controlled.

Following these guidelines, we tested four potential mediational models involving husbands' approach to infertility and wives' perceptions of the effect on infertility on the marriage. First, we found that the association between the importance of having children for husbands and wives' perception of the effect of infertility on the marriage became statistically nonsignificant when husbands' negative affect was controlled for ( $\beta = .26, P=.06$ ). Second, we found that the association between husbands' involvement in trying to have a baby and wives' perception of the effect of infertility on the marriage became statistically nonsignificant when husbands' negative affect was controlled for ( $\beta = .12, P=.46$ ). Third, we found that the association between husbands' involvement in trying to have a baby and wives' perception of the effect of infertility on the marriage became statistically nonsignificant when wives' negative affect was controlled for ( $\beta = .17, P=.20$ ). Fourth, we found that the association between husbands' desire for talking with their wives and wives' perception of the effect of infertility on the marriage became statistically nonsignificant when husbands' negative affect was controlled for ( $\beta = .16, P=.25$ ).

## DISCUSSION

Although it has been previously argued that differences between partners are responsible for conflicts that can erupt in infertile couples, this study is the first to test this hypothesis specifically. On the basis of a theoretical model, we examined how husbands' and wives' approach to infertility are associated with marital communication and with the effects of infertility on marital adjustment.

Consistent with previous research, we found that on average, having children was more important to wives than to husbands, wives were more involved in trying to have a baby, wives wanted to talk with their partner more about trying to have a baby, and wives experienced a greater loss of self-esteem than their partners. We found that how husbands approach infertility was associated with how well couples were able to communicate regarding their fertility problem and with wives' view of how infertility affected the marriage. Consistent with our theoretical model, when husbands saw having children as important, were involved in trying to have a baby, and wanted to talk with their wives about trying to have a baby, they were more positive when

discussing infertility with their wives, and in turn, their wives perceived a more positive effect of infertility on their marriage as a whole. Also, when husbands were involved in trying to have a baby, their wives were more positive when discussing infertility, and in turn, their wives perceived a more positive effect of infertility on their marriage.

In contrast to wives', husbands' perceptions of the effect of infertility on their marriage were only related to how much they thought infertility had affected their own self-esteem. If they felt infertility affected their own self-esteem negatively, they tended to think it affected their marriage negatively. Even though on average wives saw infertility as having a greater effect on their self-esteem than did husbands, this self-esteem effect was not associated with how wives saw infertility affecting their marriage. It is as though for wives, self-esteem effects and marital effects are two different experiences, whereas for husbands, they are closely related.

Although we had hypothesized that the match between partners in approach to infertility would be associated with marital communication and adjustment, our findings suggest that it is husbands' approach to infertility that may play a pivotal role in determining marital outcomes, not wives' approach, and not the match between partners per se. It did appear that the combination of a husband low in involvement and a wife high in involvement was associated with more anger and hostility by husbands, but it was husbands' involvement alone that predicted wives seeing an overall negative effect of infertility on the marriage. Although the match between partners is an intuitively appealing explanation for the development of problems, perhaps a simpler explanation is that couples who exhibit poor communication have husbands who are not very interested or involved in trying to have a baby.

The design we used has important advantages for understanding how women's and men's approaches to infertility are associated with marital communication and marital adjustment. First, by including both members of the couple, we are able to see how the views of both partners contribute to marital functioning. Second, because the researchers were not associated with the medical team, participants could feel free to express marital problems without concern that doing so might affect their treatment. Third, measuring the quality of marital communication using observational methods has clear advantages over self-report methods, because measures of self-reported communication and adjustment share method variance and because spouses are unreliable reporters of events in their relationship (24).

Despite these advantages, the results must be interpreted in light of limitations of this design. The sample size was relatively small, and as a result, the findings must be interpreted with caution and subjected to replication efforts. For example, it is possible that we would have found differences due to infertility diagnosis with a larger sample. Participants

were volunteers responding to flyers in medical offices, and we were unable to determine how many patients did not respond. Individuals who were particularly uncomfortable talking about their fertility problem may have been less likely to respond. Furthermore, the findings do not speak to the views or behaviors of couples who do not seek infertility treatment. Finally, the study design was cross-sectional and although the theoretical framework we adopt argues for a causal role of approach to infertility in determining marital outcomes, our design speaks only to the association and hence is susceptible to criticisms of the proposed direction of effects. Future research in which these associations are examined longitudinally is clearly warranted.

Despite these limitations, these findings have important implications for health care professionals working with infertile couples. Psychologists who specialize in working with infertile couples have previously argued that physicians should work with couples as a unit and encourage the participation of husbands in diagnostic and treatment planning (8, 9). These findings provide initial empirical support for this idea. Changes in husbands' interest, participation, and involvement in fertility treatment may lead to positive changes in couple communication about infertility and to a more positive effect in infertility on the marriage as a whole, at least from wives' point of view.

One important way for physicians to encourage the participation of male partners is to set the stage for considering infertility as a joint couple problem, with shared responsibility and investment (25). This can be done by referring to the couple as the patient and by suggesting attendance by both partners at important decision-making consultation appointments. Because most infertility treatment is focused on the woman, there is a natural tendency for men to feel left out and to gradually become less and less involved and interested in trying to have a baby.

For some men, direct attempts to elicit and maintain their involvement will be welcomed. In other cases, encouraging the participation of an uninterested and uninvolved husband is not easy. Sometimes husbands may have developed the sense that their opinions do not matter to their wife. The physician and medical staff can then attempt to make it clear, sensitively and nonjudgmentally, that the husband's opinions and reactions are as important as his partner's and that he will be included in the decision-making process should he choose to participate.

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