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Relationship Satisfaction Among Infertile Couples: Implications of Gender and Self-Identification

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Abstract

We use path analysis to analyze heterosexual couples from the U.S. National Survey of Fertility Barriers, a probability-based sample of women and their male partners. We restrict the sample to couples in which the women are infertile. We estimate a path model of each partner's relationship satisfaction on indicators of self-identifying as having a fertility problem or not at the individual and couple levels. We find a gender effect: for women, but not men, relationship satisfaction was significantly higher when neither partner self-identified as having a fertility problem. Women's relationship satisfaction exerted a strong influence on their partners' relationship satisfaction, but no similar association between men's relationship satisfaction and their partner's satisfaction was found. In infertile couples, higher levels of perceived social support are associated with higher levels of relationship satisfaction for women but not for men.

Keywords: dyadic relationship/quality/satisfaction, gender and family, quantitative, path analysis, infertility

Family scientists have long been interested in the chronic and acute stressors that couples may experience and their implications for couple relationship quality. Stressful situations or events that affect both partners of a couple—either directly or indirectly through spillover from one partner to the other—have been referred to as “dyadic stressors” (Karney, Story, & Bradbury, 2005; Randall & Bodenmann, 2009). Perhaps the archetype of the dyadic stressor is infertility (Berghuis & Stanton, 2002), defined by most physicians as no conception after 12 months or more of recurrent, unprotected, intercourse (American Society for Reproductive Medicine, 2008). In a heterosexual couple, infertility may be caused by factors associated with the woman, the man, or both partners. A biomedical cause for infertility can be ascertained in about 80% of all cases; of the cases of infertility that are explainable, approximately one third of cases involve female factors only, one third due to male factors only, and one third due to a combination of male and female factors (Greil, Schmidt, & Peterson, 2014). For many couples, therefore, it is the partnership, rather than a specific biological condition, that results in medicalized infertility. Regardless of which partner has the reproductive problem, both partners of a couple are generally affected and experience infertility within the context of the dyad (Johnson & Johnson, 2009).

Despite recognition of the “coupled” nature of infertility, studying infertility at the couple level has been relatively rare in social science research. Therefore, the present study investigates infertility as a couple phenomenon among heterosexual couples. By including the perspective of both relational partners, the present investigation assesses the gendered reactions to infertility for men and women in the same couple facing the same set of circumstances as the dyadic other. In this study, we examine the consequences of self-identifying as having a fertility problem for relationship satisfaction at the individual and couple levels. Several research questions emerge: Does self-identifying as having a fertility problem matter for one’s own relationship satisfaction? Does self-identifying as having a problem matter for partner’s relationship satisfaction? Does partner’s relationship satisfaction affect one’s own satisfaction? And finally, do these processes vary by gender?

To answer these questions, we use path analysis to analyze data gathered for both partners of infertile couples as part of the National Survey of Fertility Barriers (NSFB), a probability-based study of U.S. women and their partners. Because of its essentially dyadic nature,

infertility represents an ideal site for an investigation of the role gender plays in the relationship between a dyadic stressor and relationship satisfaction. The theoretical implications of this investigation thus extend beyond the case of infertility and may apply to other situations in which heterosexual couples confront a dyadic stressor. From a practical point of view, our research has implications for counselors helping infertile couples to deal more successfully with the challenges infertility may present for their relationship.

Literature Review

Infertility and Relationship Satisfaction

Infertility affects approximately 8% of U.S. women of child-bearing age (Chandra, Copen, & Stephen, 2013), and about 44% of U.S. women meet criteria for infertility at some point during their reproductive years (Johnson, McQuillan, Greil, & Shreffler, 2014). Parenthood is generally a desired and anticipated role for most U.S. women (Becker, 2000; Matthews & Martin-Matthews, 1986). Despite the increasing proportion of women without children (Dye, 2008), most U.S. women do not expect to be childless (Thornton & Young-DeMarco, 2001), and infertility is thus often an unwelcome interruption to one's planned life course (Exley & Letherby, 2001; Loftus & Andriot, 2012; Ulrich & Weatherall, 2000). But life course goals such as parenthood are not the property of a single individual; they are frequently the result of explicit or implicit negotiations between both members of a couple (Jansen & Liefbroer, 2006; Thomson, 1997; Thomson, McDonald, & Bumpass, 1990). Infertility and infertility treatment can therefore be stressors that put a heavy psychological strain on couple relationships.

Studies measuring marital satisfaction among infertile couples have yielded contradictory results. Voluntarily and involuntarily childless couples and parents do not differ in partnership distress at midlife (Wagner, Wrzus, Neyer, & Lang, 2015). In one study, those who became pregnant via in vitro fertilization (IVF) had consistently higher relationship satisfaction, but those who became pregnant spontaneously experienced declines in relationship satisfaction over time (Sydsjö, Wadsby, Kjellberg, & Sydsjö, 2002). Similarly, Pinborg, Loft, Schmidt, and Andersen (2003) showed, in a study of divorce rates among parents of 3- and 4-year-old twins, that the divorce rate for parents who

conceived spontaneously was double that of parents who conceived after assisted reproductive technology (ART) treatment. In contrast, Turkish women with infertile partners had lower levels of marital adjustment than women in couples who spontaneously conceived (Ozkan, Orhan, Aktas, & Coskuner, 2016). Wang et al. (2007) compared IVF, ICSI (intracytoplasmic sperm injection), and fertile controls and found that the two infertile groups had less stable marital relationships than the fertile controls.

There is evidence that, while infertility can place stress on marital and sexual relations (Greil, 1991; M. D. Williams, 1997), it can also contribute to strong relationships if partners come together to handle the problem (Greil, 1991, 1997; Schmidt, Holstein, Christensen, & Boivin, 2005). Chinese infertile couples seeking treatment believed that infertility is a problem that should be faced jointly and that intimacy can be improved during treatment through communication, support, and consideration of one's partner (Loke, Yu, & Hayter, 2012; Ying, Wu, & Loke, 2015). In stark contrast to stereotypes of infertile couples as desperate to have a baby, Phillips, Elander, and Montague (2014) found that infertile couples in treatment were determined not to sacrifice their relationship to the quest for a baby out of concern that the baby could suffer if born into a bad marriage. Strong marital relationships have helped couples persist through the physical and emotional hardships of the treatment experience (Ying et al., 2015).

Much research on psychosocial aspects of infertility has used clinic-based samples of people receiving treatment for infertility (Greil, 1997; Greil, Slauson-Blevins, & McQuillan, 2010). The focus on people receiving treatment makes it difficult to generalize to those who do not seek treatment (Greil, 1997); in the United States, for example, less than 50% of infertile women seek treatment (Chandra et al., 2013; Greil & McQuillan, 2004). Many couples lack the resources to pursue infertility treatment. In the United States, for example, infertility treatment is expensive, and most people have insurance plans that do not cover infertility. Other reasons for not pursuing treatment may include social stigma, lack of encouragement from social networks, and ethical concerns (Greil, McQuillan, Shreffler, Johnson, & Slauson-Blevins, 2011). Clinic-based studies therefore provide no information about half of the female infertile population. Without studies of nontreatment seekers, it is impossible to determine what factors differentiate those who seek treatment from those who do not or why those who would like to receive infertility treatment do not have

access. Furthermore, without a nonclinic comparison group, it is impossible to untangle the effects of infertility from the effects of infertility treatment on psychosocial outcomes. In this study, we examine relationship satisfaction in a probability-based sample of infertile couples that includes both couples who did and did not receive treatment.

Gender Differences in the Experience of Infertility

Among heterosexual couples, the effect of infertility on relationship satisfaction is likely to be shaped by gender. It has long been asserted that men have greater relationship satisfaction than women (Bernard, 1972), and a number of studies have supported this contention (Amato, Booth, Johnson, & Rogers, 2007; Kamp Dush, Taylor, & Kroeger, 2008; Whiteman, McHale, & Crouter, 2007). A recent meta-analysis (Jackson, Miller, Oka, & Henry, 2014), however, concluded that gender differences in marital satisfaction are minimal and disappear altogether if clinic-based studies are excluded from the analysis. There is some evidence to suggest that the relationship between marital interaction processes and relationship satisfaction is different for men and women (Mickelson, Claffey, & Williams, 2006; Rosen-Grandon, Myers, & Hattie, 2004). Some authors have argued that female partners' relationship satisfaction has more influence on male partners' relationship satisfaction than vice versa (Bodenmann, Pihet, & Kayser, 2006; Faulkner, Davey, & Davey, 2005; Kurdek, 2005).

Much research on the psychosocial outcomes of infertility has focused on gender differences in the experience of infertility (For a review, see Greil & Johnson, 2014). Much of this work has centered on differences in levels of distress and well-being. The vast majority of recent studies have supported earlier studies that concluded infertility is more distressing for women than it is for men (Anderson, Sharp, Rattray, & Irvine, 2003; Henning, Strauss, & Strauss, 2002; Hjelmstedt, Widström, Wramsby, & Collins, 2006; Monga, Alexandrescu, Katz, Stein, & Ganiats, 2004; Peterson, Pirritano, Christensen, & Schmidt, 2008). Stressful situations or events that affect both partners of a couple, either directly or indirectly through spillover from one partner to the other, have been referred to as "dyadic stressors" (Karney et al., 2005; Randall & Bodenmann, 2009; D. T. Williams, Cheadle, & Gooseby, 2015). Research examining the ways in which couples respond to dyadic stressors—often called "dyadic coping" (Bodenmann, et al., 2006)—frequently uses relationship satisfaction as the focal

outcome (Badr, Acitelli, & Carmack, 2007; Bodenmann, Meuwly, & Kayser, 2011; Faulkner, et al., 2005; Randall & Bodenmann, 2009). Because men and women are likely to respond to the dyadic stressor of infertility differently, there are reasons to expect that associations between identifying as someone with a fertility problem and relationship satisfaction may differ for female and male partners.

Research has also revealed gender differences in coping strategies. A meta-analysis of six coping studies using the Ways of Coping Checklist led to the conclusion that women display higher levels of seeking social support, escape/avoidance, planful problem solving, and positive reappraisal (Jordan & Revenson, 1999). Couple analyses indicate that women report providing more support, receiving more support, and being more satisfied with support than their husbands. Some evidence has suggested that distress levels are related to one's partner's coping strategies as well as to one's own. A fascinating study of coping among married couples found that husbands displayed more negative effects when their wives wanted to talk (Pasch, Dunkel-Schetter, & Christensen, 2002).

Rather than focus simply on whether infertile men or infertile women experience higher levels of psychological distress, some researchers have looked at differences in *how* men and women are affected by infertility. On the basis of qualitative interviews, Greil (1991) argued that wives experienced infertility as a direct blow to identity, whereas husbands experienced infertility indirectly through the effect that infertility had on their wives. Other findings support this assertion (Beutel et al., 1999; Hjelmstedt et al., 1999). Hjelmstedt et al. (1999) reported that women were more concerned about having a child, while men were more concerned about the social role of being a parent. Andrews, Abbey, and Halman (1992) reported that, for women, there was a big difference between infertility and other problems, whereas men were affected by infertility in much the same way that they were affected by other problems. It seems plausible, therefore, to expect that female partners' relationship satisfaction may have a greater effect on male partner's relationship satisfaction than vice versa. It also seems reasonable to expect that that self-identifying as someone with a fertility problem might be more strongly associated with relationship satisfaction for female partners than for male partners.

Some researchers have explored the question of whether the response to infertility may be affected by which partner has the reproductive impairment. The most common answer to this question is

“no.” Greil (1991) concluded that men were more distressed by infertility when it was they who had the reproductive impairment (compared with men who are fertile with infertile partners) but that women are equally distressed whether they had the reproductive impairment or not. Barnes (2014) studied couples with male infertility and found that the men she studied did not necessarily see their infertility as a threat to their identities.

Infertility and Self-Identification

Little is known about the extent to which partners in a couple self-identify as having a fertility problem. Many women who meet medical criteria for infertility do not perceive themselves as infertile and may even resist the infertile label (Abbey, Andrews, & Halman, 1994; Loftus, 2009). Bunting and Boivin (2007) found that women who had not visited a doctor about conceiving were more likely to fear being labelled infertile. In a sample of Midwestern women only 35% of medically defined ever-infertile women identified themselves as having had a fertility problem (White, McQuillan, Greil, & Johnson, 2006). Conversely, it is possible for people to self-identify as infertile even if they do not qualify by the medical definition. A study using the NSFB data found that of the 2,699 women *who did not fit the medical definition of infertility*, 303 (11.3%) self-identified as having a fertility problem (Greil, Leyser-Whalen, et al., 2014). Although several studies have suggested that younger cohorts of women are more “impatient to conceive” and may falsely self-diagnose themselves as infertile (Leridon, 1992; Stephen & Chandra, 2006), it is the self-identification of infertility that is stressful to individuals, rather than merely meeting the medical criteria (Greil, McQuillan, et al., 2011).

Peterson, Newton, Rosen, and Schulman (2006) found that couples in which both members accepted responsibility for the fertility problem had high levels of infertility stress. In contrast, couples in which both partners accepted low amounts of responsibility had lower levels of depression than couples in which women felt infertility (Peterson et al., 2006). Jacob, McQuillan, and Greil (2007) found that perceiving one’s self as having a fertility barrier was associated with increased distress for women. Little is known about the relationship between self-identification as someone one with a fertility problem and psychological distress among men.

The extent to which self-identification as having a fertility problem is correlated with actually having a reproductive impairment is difficult to ascertain. The existence of a reproductive impairment can be determined only through diagnosis, which implies receipt of services. Individuals who have received medical services are much more likely to self-identify as having a fertility problem than those who have not received such services (White et al., 2006). In a study, such as this one, which includes both couples who have received treatment as well as those who have not, we cannot determine for all couples which partner has a reproductive impairment. Instead, we use self-identification as having a fertility problem. Even if we were able to get diagnostic information regarding the cause of the infertility and which partner has “the problem,” we suggest that self-perception is more useful in a model that also has a self-perception-based dependent variable (relationship satisfaction). Our approach reflects the basic idea in the Symbolic Interactionist tradition of sociology known as the Thomas Theorem: What people believe to be real is real in its effects (Thomas & Thomas, 1928, p. 522). We conceptualize fertility problems as social constructions based on the interpretation of physical symptoms (or the lack thereof) as a barrier to achieving life goals.

Variables Associated With the Experience of Infertility

Although our major focus here is on possible connections between self-identifying as having a fertility problem and relationship satisfaction within the couple, we also control for a number of variables that are likely to be associated with self-identification as having a fertility problem and relationship satisfaction. Prior research suggests that education and age are relevant demographic variables. Education appears to play a protective role in the marriages of infertile couples, at least for women (Sahraian, Bahmanipoor, Amooee, Mahmoodian, & Mani, 2016; Vizheh, Pakgohar, Rouhi, & Veisy, 2015), with more educated women reporting greater marital and sexual satisfaction than less educated women (Vizheh et al., 2015). There is also evidence that marital satisfaction declines with increasing age among the infertile (Vizheh et al., 2015; Wang et al., 2007; see Gana & Jakubowska, 2014, for an exception). Vizheh et al. (2015) found that involuntarily childless women become less satisfied with their lives as they get older.

Several characteristics of the experience of infertility are also likely to be associated with self-identification and relationship satisfaction. Women with primary infertility (i.e., infertility in a woman who has not previously conceived) are more likely to see themselves as having a fertility problem than women with secondary infertility (Greil, McQuillan, et al., 2011; Moreau, Bouyer, Ducot, Spira, & Slama, 2010). Although we are not aware of studies exploring the relationship between primary infertility and relationship satisfaction, most recent studies have found that women with primary infertility exhibit higher levels of distress than women with secondary infertility (Epstein & Rosenberg, 2005; Upkong, 2006; Verhaak et al., 2007). Many women in the United States say that they are neither planning *to* become pregnant nor planning *not* to become pregnant but rather are “okay either way” (McQuillan, Greil, & Shreffler, 2010). Many of these women who are less planful about pregnancy may welcome a pregnancy when it occurs and many may become concerned about their fertility should they fail to become pregnant over time. It seems likely that women with stronger fertility intent would be more likely to self-identify as someone with a fertility problem than women with weaker fertility intent. The medical definition of infertility does not take degree of desire for a child into account, yet not all women who meet criteria for infertility say they want a child. Research on women shows that those who want a(nother) baby and those who say they were trying to have a baby at the time of their infertility episode are more likely to experience infertility-related distress (Greil, Shreffler, Schmidt, & McQuillan, 2011) and to self-identify as having a fertility problem (White et al., 2006). There is also some evidence that marital satisfaction declines with the duration of the infertility episode (Sahraian et al., 2016; Wang et al., 2007).

Turning now to psychosocial variables, we expect that perceived social support will be associated with relationship satisfaction. Studies of men undergoing treatment indicate that men describe one of their primary roles as providing support to their partners (Malik & Coulson, 2010). Yet men also perceive their own support deficits during the treatment period because the focus of treatment is on women and women’s bodies (Ying et al., 2015). It seems likely that perceived social support will also be associated with higher levels of relationship satisfaction. It also seems likely that depression will be associated with relationship satisfaction for both men and women because depression is associated with many measures of distress and well-being.

Statement of the Problem

This study seeks to determine whether self-identification as having a fertility problem is related to relationship satisfaction among heterosexual infertile couples. Because either the male partner, the female partner, or both can self-identify as having a problem, there are four types of couples who can be compared: (a) neither partner self-identifies, (b) both partners self-identify, (c) only the female partner self-identifies, and (d) only the male partner self-identifies. It is important to compare individuals in all four categories to analyze the relationship between self-identification and relationship satisfaction at the couple level. It is also important to determine whether patterns differ by gender of perceiver or gender of person with problem. Are there cross-partner effects? Do these differ by gender? Is there support for the argument that women are more likely to experience the effects of infertility directly while men are more likely to experience infertility through the effect it has on their wives?

Method

Sample

The NSFB conducted telephone interviews with a probability-based sample of 4,787 U.S. women aged 25 to 45 years during the years 2004 to 2007 and 932 of their male partners. Census central office codes with a high minority population were oversampled to ensure sufficient numbers of women for subgroup analyses. Internal review board approval was obtained. Methodological information can be accessed at: <http://sodapop.pop.psu.edu/codebooks/nsfb/wave1/> . The public-access data files can be accessed at: http://sodapop.pop.psu.edu/nsfb_page1.html .

Interviews were designed to take approximately 35 minutes and included detailed reproductive histories, as well as demographic, attitudinal, and help-seeking measures. The estimated response rate (AAPOR RR4 calculation) for the sample is 53.0% for the screener, which is typical for RDD telephone surveys conducted in recent years (McCarty, House, Harman, & Richards, 2006). Extensive comparisons with Census data indicate our weighted sample is representative of women aged 25 to 45 years in the United States. The current sample

consists of all 425 couples in which the female partner met medical criteria for infertility and where data were available for both partners. Women were classified as meeting the criteria for infertility if they answered yes to either of the following questions: (a) "Was there ever a time when you were *trying* to get pregnant but did not conceive within 12 months?" or (b) "Was there ever a time when you regularly had sex without using birth control for a year or more without getting pregnant?" or if they reported not having a pregnancy after a period of at least 12 months during which they were not breastfeeding and they were either *trying* to become pregnant or said they were "okay either way."

Because male respondents were not the main respondents of the study, we cannot generalize our findings beyond men in married or cohabiting relationships with women aged 25 to 45 years. In addition, not all male partners were asked to participate, and not all of those who were asked complied. Among the women with partners, 47% of the partners completed the partner interview. Johnson and Johnson (2009) used the female partners' data to compare the couples in which men participated to the couples in which men did not participate among the first one-third of the completed surveys. They found that the following factors were associated with higher completion rates for men: greater relationship longevity, increased age, higher education, fatherhood, men's higher fertility intentions, the woman's having a chronic health problem, and race (partners of White women were more likely to participate). Therefore, we must consider this work exploratory and are careful to generalize only to men who are married or cohabiting with women ages 25 to 45 years. We know of no other large population-based studies that measure importance of fatherhood; therefore, we proceed with the analysis of these data.

Measures

We considered a woman to have self-identified as having a fertility problem if she answered "yes" or "maybe" to either: "Do you think of yourself as someone who has, has had, or might have trouble getting pregnant?" or "Do you think of yourself as someone who has or has had fertility problems?" Women who answered "no" to both questions were considered not to have self-identified as having had a fertility problem. Men were considered to have self-identified as a person with a fertility problem if they answered "yes" or "maybe" to the question:

“Do you think of yourself as someone who has, has had or might have trouble fathering a child?” Answers to the self-identity questions were combined into four categories: (a) neither partner self-identifies, (b) both partners self-identify, (c) only the female partner self-identifies, and (d) only the male partner self-identifies.

Relationship satisfaction was measured by combining responses to the following questions: “Taking all things together, how would you describe your relationship? Would you say that it is very happy, pretty happy, or not too happy?” “Have you ever thought your relationship might be in trouble?” “Do you feel this way now?” and “Have you and your partner discussed the possibility of ending your relationship any time in the last 3 years?” All items were recoded so that higher scores indicate greater satisfaction. This variable was measured for both men and women. To give all items equal weight, “no” answers to yes/no questions were coded as “3,” and “yes” answers were coded as “1.” The relationship satisfaction scale was created by computing the mean of available items. The scale ranges from “1” (lowest relationship satisfaction) to “3” (highest relationship satisfaction). We also controlled for the variables described in the literature review that have been associated with self-identification and/or relationship satisfaction in prior research (i.e., education, age, primary/secondary infertility, infertility episode recency, pregnancy planfulness, wants another child, social support, and distress). We provide description of the measures of these variables in **Table 1**.

Analytical Strategy

We estimated three models of the association between self-identifying and relationship satisfaction in MPlus. In all three models, female relationship satisfaction was regressed on the self-identity dummy variables and the female control variables. Likewise, for all three models, male relationship satisfaction was regressed on the self-identity dummy variables and the male control variables. We first estimated a nonrecursive model in which female and male partners' relationship satisfaction were assumed to affect one another (see **Figure 1**). We then compared that model to two recursive models, one in which female relationship satisfaction was presumed to influence male relationship satisfaction and one in which male relationship satisfaction was presumed to influence female relationship satisfaction in order to determine which of these models best fits the data. Results are

Table 1. Control Variables Used in the Analysis.

<i>Name</i>	<i>Description</i>
Education	Years of formal schooling. Measured for both partners.
Age	Measured in years. Measured for women only.
Primary infertility	Constructed from women's pregnancy histories. 1 = No pregnancies at time of first infertility episode.
Pregnancy planfulness	1 = "Yes" to the question: "Was there ever a time when you were <i>trying</i> to get pregnant but did not conceive within 12 months?" or if reported having a pregnancy after a period of at least 12 months during which <i>trying</i> to become pregnant.
Wants a(nother) child	1 = "Yes" to the question: "Would you, yourself, like to have a(nother) baby?"
Episode within 5 years	Constructed from pregnancy histories. 1 = Episode within past 5 years; 0 = other. Measured for women only.
Social support	Four-item scale based on Sherbourne and Stewart (1991). "How often is each of the following kinds of support available to you if you need it?" Example, "Someone to give you good advice about a crisis?" 4 = <i>often</i> to 1 = <i>never</i> ($\alpha = .84$). Measured for both partners.
Depression	Ten-item modified version of the Center for Epidemiologic Studies–Depression Scale (CES-D; Radloff, 1977; see also Andresen, Malmgren, Carter, & Patrick, 1994). Examples: "In the past two weeks . . . I was bothered by things that don't usually bother me;" "I felt depressed;" and "My sleep was restless." Measured on a 4-point Likert-type scale with responses ranging from 0 (<i>never or rarely</i>) to 3 (<i>all of the time</i>). Cronbach's alpha for the CES-D scale in the NSFB is .78. Measured for both partners.

discussed below. Finally, we conducted a path analysis to determine the relationship between self-identification as having a fertility problem and relationship satisfaction at the couple level, adjusted for the control variables.

Results

Table 2 presents descriptive statistics for all variables in the model. Then, as noted above, we estimated three alternative regression

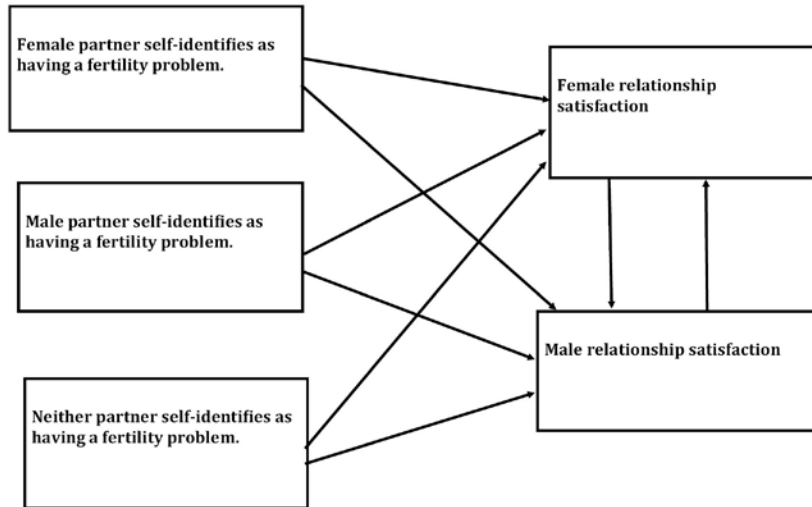


Figure 1. Simplified causal model.

Table 2. Descriptive Statistics for 425 Infertile Couples.

<i>Variable</i>	<i>M or %</i>	<i>SD</i>
Woman's relationship satisfaction	2.42	0.53
Man's relationship satisfaction	2.46	0.53
Woman's education	14.98	2.78
Man's education	14.79	2.84
Age	35.74	5.92
Primary infertility	48.00%	
Pregnancy planfulness	60.71%	
Wants another child	76.70%	
Episode within last 5 years	40.24%	
Woman's social support	14.80	2.16
Man's social support	13.38	3.18
Woman's depression	16.71	4.65
Man's depression	15.34	4.33
Woman self-identifies only	45.28%	
Man self-identifies only	4.71%	
Both self-identify	13.41%	
Neither self-identifies	36.71%	

Data from National Survey of Fertility Barriers, Wave 1.

models. We provide the fit statistics for the three model specifications in **Table 3**. The first line of data displays fit statistics for the nonrecursive model in which female relationship satisfaction and male relationship satisfaction are presumed to exert mutual influence. We treat this nonrecursive model as the baseline and compared the models with only one partner influencing the other as the comparison models. The chi-square significance test indicates that the model in which only female relationship satisfaction is presumed to influence male relationship satisfaction does not have a significantly worse fit than the baseline nonrecursive model (mutual influence; Row 2 compared with Row 1). In contrast, the chi-square test indicates that the model in which only male partner relationship satisfaction is presumed to influence female partner relationship satisfaction does have a significantly worse fit than the baseline mutual influence model (Row 3 compared with Row 1).

Therefore, a model in which female relationship satisfaction is constrained to have no effect on male relationship satisfaction but where male relationship satisfaction is allowed to exert an effect on female relationship satisfaction does not fit the data as well as the nonrecursive (mutual influence) model. The most parsimonious model is the one in which only the female partner's relationship satisfaction is presumed to influence the male partner's relationship satisfaction (but not vice versa; the second row). We therefore provide the coefficients for the path model with the path from her to his, but not his to her, relationship satisfaction.

Table 3. Fit Statistics for Alternative Models of Relationship Satisfaction, 425 Infertile Couples.

<i>Model</i>	χ^2	<i>df</i>	<i>p</i>	<i>TLI</i>	<i>CFI</i>	<i>RMSEA</i>	<i>Dif</i> χ^2	<i>Dif</i> <i>df</i>	<i>Dif</i> <i>p</i>
Non-recursive model	19.266	10	.037	.918	.972	.047			
Woman's relationship satisfaction as predictor	23.635	11	.014	.899	.962	.052	2.613	1	.106
Man's relationship satisfaction as predictor	28.856	11	.002	.857	.946	.065	5.602	1	.002

TLI = Tucker–Lewis index; CFI = comparative fit index; RMSEA = root mean square error of approximation. Data from National Survey of Fertility Barriers, Wave 1.

Table 4. Relationship Satisfaction by Self-Identification and Control Variables for Women and Men in 425 Infertile Couples.

<i>Beta</i>	<i>SE</i>	<i>t</i>	<i>p</i>	<i>Value</i>
Women's relationship satisfaction				
Woman's education	-.03	.05	-0.70	.487
Woman's age	.04	.05	0.90	.366
Primary infertility	.08	.05	1.54	.123
Pregnancy planfulness	.05	.05	0.97	.333
Woman wants another child	.09	.05	1.90	.058
Episode within last 5 years	.05	.05	0.98	.329
Woman's social support	.17	.04	3.88	.000
Woman's depression	-.38	.04	-8.42	.000
Woman self-identifies	.05	.07	0.77	.441
Man self-identifies	-.05	.05	-1.08	.278
Neither self-identifies	.17	.08	2.25	.024
Men's relationship satisfaction				
Man's education	-.05	.04	1.21	.226
Man's social support	-.03	.04	-0.87	.385
Man's depression	-.22	.04	-5.23	.000
Woman self-identifies	-.01	.07	-0.10	.924
Man self-identifies	.02	.05	0.34	.736
Neither self-identifies	-.06	.07	-0.85	.395
Woman's relationship satisfaction	.46	.04	0.52	.000

StdYX standardization. Data from National Survey of Fertility Barriers, Wave 1.

Table 4 displays the results of a path analysis in which the female partner's relationship satisfaction is presumed to influence the male partner's relationship satisfaction, but where the male partner's relationship satisfaction is constrained not to assert an influence on the female partner's relationship satisfaction. It may seem counterintuitive, but we selected "both self-identify" as the reference category because this choice enabled us to compare couples who shared a self-identity as infertile to couples in all other categories. The first result worth noting is that the female partner's relationship satisfaction was significantly higher ($Beta = .17$; $p = .024$) when neither partner self-identified as having a fertility problem compared with the other three categories. Among women, if anyone self-identified (she, he, or both of them), relationship satisfaction was lower than if neither self-identified as having a fertility problem. The male partner's relationship satisfaction, however, was not associated with self-identification as having a fertility problem.

As indicated above, a model in which only female relationship satisfaction influences male relationship satisfaction (but not the reverse) has a good fit to the data. Table 4 shows that the female partner's relationship satisfaction *does* exert a strong influence (Beta = .46; $p = .000$) on her partner's relationship satisfaction. For women, higher perceived level of social support is associated with higher levels of relationship satisfaction (Beta = .17; $p = .000$), but the same association does not hold for the male partner. For both partners, higher levels of depression are associated with much lower levels of relationship satisfaction (female: Beta = $-.38$, $p = .000$; male: Beta = $-.22$; $p = .000$).

Discussion

We examined effects of self-identification as having a fertility problem at the couple level (woman only identifies as infertile, man only, both, and neither) on his and her relationship satisfaction among couples who meet the medical criteria for infertility in a random sample of American women of reproductive age and their partners. The large NSFB sample of infertile couples provided an unprecedented opportunity to examine the implications of self-identification as having a fertility problem for each partner's reported satisfaction with their relationship.

In this article, we asked whether the relationship between self-identification as having a fertility and relationship satisfaction varied for female and male partners in infertile couples. The answer to that question appears to be yes. Our analysis provides evidence that even though a couple meets the infertility criteria, when neither identify as having a fertility problem, women's relationship satisfaction is higher than when either partner self-identifies. We also asked whether which partner self-identifies as having a fertility problem is associated with relationship satisfaction. The answer to that question appears to be no. Female partners in infertile couple have lower relationship satisfaction if either or both partners self-identify as having a fertility problem. Self-identification as having a fertility problem was not, however, associated with men's relationship satisfaction.

Twenty-five years ago, Greil (1991) argued, based on qualitative data, that wives experience infertility as a direct blow to identity, whereas husbands experience infertility indirectly through the effect that infertility has on their wives. The present study, based on

quantitative data, appears to support that argument. Women in these couples reported lower relationship satisfaction when both partners self-identified as having a fertility problem. On the other hand, the factor that was most strongly related to relationship satisfaction for men was partner's relationship satisfaction. Most of our control variables were not significantly associated with relationship satisfaction for male or female partners, with a few exceptions. The female partner's relationship satisfaction was strongly associated with the social support she perceived herself receiving but this was not true for the male partners. Both men and women's self-reported depression was the most salient for their perceptions of relationship satisfaction, with the exception of the impact of the woman's relationship satisfaction for men's own reports.

This study has several limitations. First of all, we are limited by cross-sectional data; we are therefore unable to draw a definitive conclusion about causal direction. It seems likely that self-identification as having a fertility problem affects relationship satisfaction and not the reverse, however. Although we have some causal ordering in that the infertility episode(s) occurred before our measures of relationship satisfaction, only longitudinal data can make causal order clear. A second limitation is the relatively crude nature of the relationship satisfaction scale. A better measure of relationship satisfaction should improve the estimates in this model. In addition, we would be interested to know the trajectory of relationship satisfaction before and during an infertility episode, not just after. It is possible that relationship satisfaction is not linear; perhaps, as qualitative data suggest, it is particularly low in the middle of an infertility episode but "bounces back" to pre-infertility levels over time. Third, we do not have enough cases to include all variables which might reasonably be expected to be associated with relationship satisfaction. A larger sample would have allowed us to include more control variables. It would also be preferable to have a random sample of infertile couples rather than merely a random sample of women and their partners. A fourth limitation is that we are unable to determine the extent to which self-identification as having a fertility problem reflects biomedical realities. It was impossible to include measure based in medical diagnoses in a sample that included couples that had not received medical services for infertility. We believe that the cost of not being able to determine the existence of reproductive impairments is a price worth paying for the benefits of using a probability-based sample that includes both those

who sought treatment and those who did not. Still, we must acknowledge this as a limitation of the present study.

Despite these limitations, however, this study is the first to provide an in-depth investigation of how each partner in a heterosexual relationship self-identifies as having a fertility problem and the implications this has for relationship satisfaction. Having a probability-based sample of infertile couples allows us to generalize beyond treatment-seekers. We were thereby able to shed new light on the gendered experience of infertility and to offer support for a hypothesis (Greil, 1991) that has not been tested until now. Our focus on gender has allowed us to add a new dimension to studies of dyadic coping and relationship satisfaction. This study has practical implications for couples who experience infertility and the medical or mental health practitioners who work with them. Our findings highlight the need to approach the infertility experience as a dyadic stressor.

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