A longitudinal study was conducted to examine the effects of infertility on marital and global life quality with wives and husbands from 174 infertile couples and a comparison group of 74 fertile couples. By the third interview, 42% of the infertile couples and 36% of the fertile couples were parents. Bivariate correlations and multiple regression analyses were completed. The psychosocial predictors of life quality were highly similar for members of infertile and fertile couples and for couples with and without children. In multivariate analyses, being a parent was associated with increased global life quality for infertile women and diminished marital life quality for everyone except fertile men. These results replicate and extend past research.

Psychosocial Predictors of Life Quality

How Are They Affected by Infertility, Gender, and Parenthood?*

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Infertility is usually defined as the failure to conceive after one year of regular, unprotected sexual intercourse or the inability to carry a pregnancy to live birth (Benson, 1983). Approximately 18% of American married couples without children are infertile (Mosher & Pratt, 1990). About half of infertile couples eventually have a child, whereas the other half do not (Collins, Garner, Wilson, Wrixon, & Casper, 1984).

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INFERTILITY'S EFFECTS ON PSYCHOLOGICAL WELL-BEING

Negative affect and diminished self-esteem are common responses to infertility, particularly regarding the sexual domain (Berg & Wilson, 1991; Keye, 1984; Mahlstedt, 1985). The inability to reproduce is often interpreted as a sign of personal failure and that one is not a complete woman or man (Mahlstedt, 1985). Reductions in the frequency and pleasure of sexual relations are often reported by infertile couples (Berg & Wilson, 1991).

Most people have never considered the possibility that they might be unable to have a child (McCormick, 1980). Thus the diagnosis of infertility comes as a shock to couples who had expected to be able to control their own fertility. Not surprisingly, a diminished sense of internal control has frequently been associated with infertility (Campbell, Dunkel-Schetter, & Peplau, 1991; McCormick, 1980). Women who feel that their infertility has caused them to lose control of their lives tend to have a more difficult time adjusting to failed in vitro fertilization treatments (Litt, Tennen, Affleck, & Klock, 1992).

Conflict and arguments about how to handle infertility can reduce marital well-being (Abbey, Andrews, & Halman, 1991; Hirsch & Hirsch, 1989; Pepe & Byrne, 1991). Traditional gender role differences in the expression of negative affect can make it difficult for husbands and wives to use the same coping strategies, share their feelings, and feel fully supported by each other (Greil, 1991; Mahlstedt, 1985; Stanton, Tennen, Affleck, & Mendola, 1992).

GENDER DIFFERENCES IN THE EFFECTS OF INFERTILITY

Many authors have found that infertility is more stressful for women than for men (Freeman, Boxer, Rickels, Tureck, & Mastroianni, 1985; Wright et al., 1991). This gender difference in response to infertility can be explained in several different ways. American society's emphasis on motherhood as women's primary adult role may cause infertile women to experience more distress than their husbands at the thought of remaining childless (Greil, 1991; Miall, 1985). The majority of infertility tests and treatments require only the woman's participation, so her life is more disrupted by treatment than is her partner's (Abbey, Andrews, & Halman, 1992). It is the woman who is physically reminded of the couple's lack of

success each month with the onset of menstruation. And finally, many people assume that the infertility problem resides within the woman (which is not true in at least 30% of infertile couples) (Benson, 1983). Consequently, women are more affected than are their partners by the responses of others, which often are perceived as disapproving and unhelpful (Abbey et al., 1991).

TRANSITION TO PARENTHOOD

There are many stresses associated with the transition to parenthood for all couples regardless of their previous fertility status (Belsky & Pensky, 1988; Glenn & McLanahan, 1982). Becoming a parent is associated with a more traditional division of labor (and wives' dissatisfaction with the division of labor), less positive marital exchanges, more marital conflict, less shared leisure time, less frequent sexual intercourse, and less marital satisfaction (Belsky & Pensky, 1988; Belsky, Spanier, & Rovine, 1983; Brodzinsky & Huffman, 1988; Cowan et al., 1985; Ruble, Fleming, Hackel, & Stangor, 1988). In most cases, these negative aspects of becoming a parent are stronger for women than for men (Belsky & Pensky, 1988; Grossman, 1988; Miller & Sollie, 1980; Ruble et al., 1988).

The effects of becoming a parent on previously infertile couples has not been systematically investigated. Garner (1985) provided anecdotal evidence that suggested that some previously infertile couples have difficulty acknowledging the unpleasant aspects of parenting (e.g., fatigue, less leisure time) because they had idealized what parenthood would be like and feel that expressing negative affect "would make them appear ungrateful and less than perfect parents" (p. 60s). Brodzinsky and Huffman (1988) reviewed the empirical data on the transition to parenthood for adoptive parents, many of whom are infertile, and concluded that they exhibit no more negative consequences of parenting during their child's infancy and preschool years than do nonadoptive parents.

GOALS OF THIS STUDY

The purpose of the study described in this article was to determine if the psychosocial predictors of life quality vary as a function of gender, fertility, and parenting status. Many studies have documented the negative psychological and social impact of infertility, but few have considered the long-term ramifications of infertility on couples who become parents and

those who remain childless. If previously infertile couples have a more difficult time adjusting to parenthood, this has important practical and policy implications that need to be addressed by health care providers.

Based on the social psychological literature on stress and coping, as well as the infertility and transition to parenthood literatures, it was hypothesized that a number of different psychosocial variables would affect life quality for all study participants. Stress, interpersonal conflict between spouses, and escape coping were hypothesized to be negatively related to life quality (Abbey, Abramis, & Caplan, 1985; Abbey & Andrews, 1985; Folkman & Lazarus, 1985; Kessler, Price, & Wortman, 1985; Stanton et al., 1992). Perceived control, social support from spouse and network members, problem-solving coping, and frequency of intercourse were hypothesized to be positively related to life quality (Abbey & Andrews, 1985; Folkman & Lazarus, 1985; Headey & Wearing, 1990; Kessler et al., 1985; Litt et al., 1992). Past research serves as an important guide for hypothesis generation; however, it also suggests that depending on the type of life problem and the individual's stage of adjustment to the problem, reactions can differ. Consequently, it cannot be assumed that the relationships between psychosocial factors and infertility will be precisely the same as for other life events.

Two dimensions of life quality were examined: marital and global. These two aspects of life quality were expected to share many of the same predictors, however, spouse-focused variables such as frequency of intercourse, spouse social support, and spouse interpersonal conflict were expected to have a larger impact on marital than global life quality. General concepts, such as personal control, coping, and network support were expected to relate more strongly to global than to marital life quality.

Based on the research described above (Belsky & Pensky, 1988; Glenn & McLanahan, 1982), becoming a parent was hypothesized to be negatively related to marital life quality because of the various stresses associated with adapting to a new lifestyle and responsibilities. This effect was expected to be stronger for infertile couples, who may glamorize parenting and may not be adequately prepared for the disruption a young child brings to a home (Garner, 1985). This effect was also expected to be stronger for women than for men because in most marriages women have more child-related responsibilities than do men (Belsky & Pensky, 1988). Parenthood was expected to have a weaker effect on global as compared to marital life quality because global life quality is affected by a greater variety of life domains (Andrews & Withey, 1976).

METHOD

STUDY PARTICIPANTS

In 1988, separate in-person interviews were conducted with both wives and husbands in 275 couples (550 individuals). Couples with primary infertility were principally recruited from infertility specialists. All but one of the major infertility practices in Southeastern Michigan agreed to collaborate with this study. Eighty-one percent of the eligible nominees participated in the study (n = 170). Participants were required to be married, childless, White, and middle class (defined as having a high school education and 1987 household income in the range of $20,000 to $100,000).[1] Only childless couples were included because the stress associated with infertility and the effect of becoming a parent may differ for couples with and without children. White, middle-class couples were used because this is the sociodemographic profile of couples most likely to seek treatment for infertility (Henshaw & Orr, 1987; Mosher & Pratt, 1990). Having a relatively homogeneous group of respondents allows more sophisticated analyses to be completed with a smaller number of cases.

In addition to the 170 infertile couples recruited from physicians' offices, 15 infertile couples were recruited from nonmedical sources. Nine couples came from self-help groups for infertile individuals, 1 from newspaper advertisements, 1 from a participant referral, and 4 couples came from marriage license applicants.

A comparison group of 90 presumed fertile couples was also included. These couples were required to have the same demographic profile as the infertile couples, no known gynecological or other problems associated with infertility, no children, and a desire to have children in a few years. Of these couples, 42 were recruited from gynecological practices, 38 from marriage license applicants, 5 from newspaper advertisements, and 5 from study participants' referrals.

PROCEDURES

Initial interview. Patients who fit this study's eligibility criteria were asked by their physician if they were willing to participate in a university study of marriage, family, and childbearing issues. To supplement the sample, self-help group members were recruited through an article printed

in their organization's monthly newsletter and advertisements were placed in several local newspapers. Study participants were sent a letter asking if they knew of any eligible couples who would be interested in participating. A sample of the previous year's marriage license applicants from the county in which most study participants lived was also sent a letter inviting them to participate.

Couples who agreed to participate were sent a brochure describing the study, and then they were contacted by a professional interviewer from the Survey Research Center at the University of Michigan. At the initial interview, separate one hour, in-person interviews were conducted with each member of the couple. Husbands and wives were usually interviewed on the same day and neither was able to hear the other's responses.

Follow-up interviews. Follow-up telephone interviews were conducted 1 and 2 years later. Because of this study's focus on couples, only couples who were still married to each other were eligible for follow-up interviews. There were nine divorces and one death between the first and final interview, consequently 265 couples were eligible. Ninety-seven percent of these couples were successfully reinterviewed (n = 258). Ten of the original 90 presumed fertile couples developed a fertility problem during the course of the study. These couples' shifting fertility status makes them a small, unique subgroup. Thus, for conceptual clarity, they were omitted from the data analyses described here (final sample = 248 couples; 174 of whom were infertile at the initial interview and 74 couples with no known fertility problem throughout the study).

Although the words *infertile* and *infertility* are used in this article, these words were not used with the couples who participated in the research. Pilot testing indicated that the term infertile connoted a sense of finality that the study participants found unsettling. Instead, in the interview the term *fertility problem* was used.

DESCRIPTIVE PROFILE OF STUDY PARTICIPANTS AT THE INITIAL INTERVIEW

The average age of the infertile women was 32 years, whereas the average age of the infertile men was 34 years. These couples had been married 6 years on average. Presumed fertile women had an average age of 28, whereas the average age of the presumed fertile men was 30. These couples had been married 2 years on average. The mean annual household income in 1987 reported by infertile couples was about $55,000, and for presumed fertile couples, it was about $48,000. Infertile and pre-

sumed fertile women and men averaged approximately 3 years of college education.

Age, number of years married, income, and education were included in a number of preliminary bivariate and multivariate analyses. In virtually all cases, these variables were not significantly correlated with the psychosocial concepts examined in this study, and their inclusion in multivariate analyses did not change the pattern of any of the results.

The representativeness of the infertile sample was assessed by comparing its demographic characteristics to that of the married, childless infertile women in a nationally representative sample of American women of childbearing age (Mosher & Pratt, 1990). Overall, the demographic profile of the two groups was highly similar, although women in this study had slightly higher incomes and had been married slightly fewer years than the women in the national sample.

MEASURES

Life quality. Two domains of life quality were assessed using subscales based on Andrews and Withey's (1976) study of life quality. Marital life quality was assessed with five items that examined how satisfied respondents were with the their marriage, their spouse, and the sexual and romantic aspects of their marriage. Global life quality was assessed with two items asking respondents about their happiness and satisfaction with their life as a whole. Responses were made on 5-point Likert-type scales with options that ranged from *very dissatisfied* to *very satisfied*, except for the happiness item that was measured on a 3-point Likert-type scale. Cronbach's alpha for marital life quality was .84 and .87 for the initial and final interviews, respectively. Cronbach's alpha for global life quality was .74 and .78 for the initial and final interviews, respectively.

Fertility/biggest problem stress. A series of nine questions assessed the amount of stress and disruption the fertility problem had produced overall and in various domains of respondents' lives. Three items assessed overall stress (experienced disruption, life change, and stress). The remaining six items referred to specific life domains (physical health, mental health, marriage, sex life, finances, relations with others). These domains were selected based on previous research and pilot interviews.

Presumed fertile couples and infertile couples who had become parents answered the same series of items regarding the biggest problem in their life. For women, the five most frequently mentioned biggest problems at

the final interview were in the areas of children (37%), marriage (14%), work (14%), money (13%), and health (5%). For men, the most frequently mentioned biggest problems were in the same domains but were ordered somewhat differently: work (32%), children (22%), money (19%), marriage (9%), and health (5%).

Both the fertility and biggest problem items were answered using 5-point Likert-type scales with response options that ranged from *none at all* to *a great deal.* Cronbach's coefficient alpha was .84 at the initial and .85 at the final interview for the combined fertility problem/biggest problem stress index.

Home life stress. Home life stress was measured with three items designed to assess how much role ambiguity participants were experiencing in their home life (Caplan, Cobb, French, Harrison, & Pinneau, 1980). The questions focused on participants' certainty about how well they were handling their household responsibilities and what their spouse expected of them at home. Responses were made on 5-point Likert-type scales with response options that ranged from *very unsure* to *very sure.* Cronbach's alpha was .67 at the initial and .70 at the final interview.

Personal control. A 5-item perceived personal control scale was developed by the research team based on previous research (Abbey & Andrews, 1985; Pearlin, Menaghan, Lieberman, & Mullan, 1981; e.g., "I can run my life pretty much the way I want to"). Responses were made on 5-point Likert-type scales with response options ranging from *strongly disagree* to *strongly agree.* This scale had a Cronbach's alpha of .79 at the initial interview and .80 at the final interview.

Social relationships. The amount of social support and interpersonal conflict received from one's spouse was measured using scales developed in previous research (Abbey et al., 1985). Social support was measured with six items that assessed the extent to which respondents felt that their spouse appreciated, respected, understood, and cared for them. Interpersonal conflict was measured with seven items assessing the extent to which respondents felt that their spouse acted cold, judgmental, unpleasant, or showed dislike. Ratings were made on 5-point Likert-type scales with options ranging from *not at all* to *a great deal.* Cronbach's alpha for social support was .87 and .91 at the initial and final interviews, respectively. Cronbach's alpha for interpersonal conflict was .83 and .88 at the initial and final interviews, respectively.

A four-item short form of Sarason, Levine, Basham, and Sarason's (1983) satisfaction with social support measure was also used to assess study participants' satisfaction with the social support available to them from network members. Respondents rated how satisfied they were with how much they could count on others to accept, care, console, and relax them using 5-point Likert-type scales with response options ranging from *very dissatisfied* to *very satisfied.* Cronbach's alpha at the initial interview was .82 and at the final interview, .85.

Coping. Two measures of coping were included based on Folkman and Lazarus's Ways of Coping Scale (1985). A five-item problem-solving coping scale assessed the extent to which respondents engaged in active problem-solving strategies such as planning, analyzing, and reading to deal with their fertility or biggest problem. The four-item escape coping scale assessed the extent to which respondents engaged in escapist strategies such as fantasizing, wishing, or hoping for miracles. Responses for each index were made on 4-point Likert-type scales with options ranging from *not at all* to *a great deal.* Cronbach's alpha for problem-solving coping was .62 and .72 for the initial and final interviews, respectively. Cronbach's alpha for escape coping was .69 and .72 for the initial and final interviews, respectively.

Frequency of intercourse. Frequency of intercourse was measured with a single item that asked participants to rate their current frequency of sexual intercourse using a 6-point Likert-type scale. Response options ranged from *less than once a month* to *four or more times a week.*

RESULTS

PARENTING STATUS AT THE FOLLOW-UP INTERVIEW

By the final interview, 73 (42%) of the infertile couples were parents.[2] Fifty-nine couples had become parents through the wife's pregnancy, whereas 14 couples had adopted an infant. The children who were born through wives' pregnancies ranged in age from 3 to 18 months of age; the mean age was 10 months. Adopted children ranged in age from 5 to 30 months; the mean age was 16 months.[3]

Twenty-seven (36%) of the presumed fertile couples were parents by the final interview. None of these births involved adoption or intervention from a specialist. These children ranged in age from 1 to 17 months of age; the median age was 9 months.

BIVARIATE RELATIONSHIPS

The Pearson product moment correlation coefficients between the psychosocial variables described in the Method section and life quality at the final interview are presented in Table 1. Each column of the table includes the data for a different subgroup: infertile women, infertile men, presumed fertile women, and presumed fertile men. Two rows are presented for each psychosocial variable, one showing its correlations with marital life quality and the second showing its correlations with global life quality.[4]

Marital life quality. As can be seen in Table 1, being a parent was significantly negatively related to marital life quality for infertile women and men. As hypothesized, both fertility/biggest problem stress (FP/BP stress) and home life stress were negatively related to marital life quality. Personal control was significantly positively related to marital life quality for members of all subgroups. Social support from spouse and network members was highly positively correlated with marital life quality, whereas interpersonal conflict from spouse was strongly negatively correlated with marital life quality for all subgroups. Problem-solving coping was unrelated to marital life quality for all subgroups. Escape coping was significantly negatively related to marital life quality only for infertile men (although the pattern was similar for fertile men and women). Intercourse frequency was strongly positively related to marital life quality for all groups of study participants.

Global life quality. The pattern of results for global life quality was similar, with some exceptions, to that found for marital life quality (*r*s between global and marital ranged from .51 to .54 across the different subgroups). Unexpectedly, being a parent was significantly positively correlated with global life quality for infertile women. Contrary to hypothesis, problem-solving coping was significantly negatively related to global life quality for infertile men (and nonsignificant for other participants). Intercourse frequency was positively related to global life quality only for infertile men and women.

TABLE 1
Bivariate Relationships Between Psychosocial Variables and Life Quality at the Final Interview

		Initially Infertile		*Presumed Fertile*	
		Women (n = 174)	*Men (n = 174)*	*Women (n = 74)*	*Men (n = 74)*
Parental status[a]	Marital	–.20**	–.20**	–.09	.06
	Global	.19**	.08	.01	.13
FP/BP stress	Marital	–.37**	–.49**	–.50**	–.14
	Global	–.45**	–.45**	–.61**	–.30**
Home stress	Marital	–.45**	–.46**	–.45**	–.32**
	Global	–.36**	–.40**	–.28*	–.34**
Personal control	Marital	.38**	.37**	.47**	.41**
	Global	.65**	.62**	.74**	.52**
Network support	Marital	.40**	.47**	.52**	.54**
	Global	.48**	.55**	.50**	.54**
Spouse support	Marital	.71**	.66**	.76**	.72**
	Global	.44**	.51**	.51**	.53**
Spouse conflict	Marital	–.61**	–.65**	–.67**	–.67**
	Global	–.31**	–.50**	–.51**	–.38**
Problem-solving coping	Marital	.12	–.03	.11	–.12
	Global	.13	–.19**	–.12	–.16
Escape coping	Marital	.02	–.27**	–.21	–.20
	Global	–.24**	–.31**	–.40**	–.47**
Intercourse frequency	Marital	.51**	.57**	.39**	.28*
	Global	.15*	.34**	.00	.07

NOTE: The first row for each psychosocial variable includes its correlations with marital life quality. The second row for each psychosocial variable includes its correlations with global life quality.
a. Positive scores associated with being a parent.
*$p < .05$; **$p < .01$.

MULTIPLE REGRESSION ANALYSES

A series of hierarchical multiple regression analyses predicting marital and global life quality at the final interview were completed for infertile women, infertile men, fertile women, and fertile men.[5] Initially, any variable that was a significant bivariate cross-sectional correlate for any of the four subgroups was included in the regression equation for each subgroup. Predictor variables that were not significant for any subgroup

were trimmed from the model. The final models, which include only predictor variables that were significant for at least one subgroup of study participants, are presented in Table 2 (marital life quality) and Table 3 (global life quality).

In these hierarchical multiple regression analyses, the first step always included two variables: (a) participants' scores at the first interview on the dependent variable (to control for initial differences in life quality),[6] and (b) parenting status (parent at final interview or not). The second step included main effects of the psychosocial variables. Because initial life quality is partialled out, these analyses use psychosocial status at the final interview to predict changes in life quality from the initial to the final interview. The third step included interaction terms. There is a large body of literature that discusses interactive effects between stress and psychosocial factors such as social support and personal control (Abbey & Andrews, 1985). To allow for interactive relationships, centered multiplicative interaction terms were developed to represent the interaction of stress with each psychosocial variable in the model. Only two interactions were significant, which is less than what would be expected by chance. Consequently, the relationship between the psychosocial variables included in these analyses and life quality appear to be best represented by main effects models.

Marital life quality. As can be seen in Table 2, for each group of respondents, initial marital life quality was a significant positive predictor of marital life quality 2 years later. Being a parent was significantly negatively related to marital life quality for infertile women and men and marginally negatively related for fertile women.

When concurrent psychosocial variables were entered at Step 2, fertility/biggest problem stress (FP/BP stress) was significantly negatively related to marital life quality for infertile women and men and marginally related for fertile women. Social support received from one's spouse was a significant positive predictor of marital life quality for all four groups of study participants. Interpersonal conflict received from one's spouse was significantly negatively related to marital life quality for infertile women and men and fertile men. Increased frequency of intercourse was positively related to marital life quality for all groups of study participants. None of the other variables in Table 1 were significant multivariate predictors of marital life quality. The set of predictors presented in Table 2 explained between 64% and 76% (depending on the subgroup) of the variance in marital life quality.

TABLE 2
Hierarchical Multiple Regression Analysis Predicting Marital Life Quality at the Final Interview

	Initially Infertile		*Presumed Fertile*	
	Women (n = *174*)	*Men* (n = *174*)	*Women* (n = *74*)	*Men* (n = *74*)
Step 1				
Marital life quality at the initial interview	.46***	.52***	.48***	.70***
Parental status[a]	–.16***	–.22***	–.19*	–.06
Adjusted R^2 (percentage)	24.10	32.21	21.45	45.72
Step 2				
FP/BP stress	–.16***	–.15**	–.14*	–.05
Spouse support	.41***	.28***	.60***	.24***
Spouse conflict	–.15**	–.24***	–.03	–.40***
Intercourse frequency	.28***	.23***	.18**	.13**
Adjusted R^2 (percentage)	63.78	68.26	72.39	75.88

NOTE: Standardized beta coefficients are presented in the table.
a. Positive scores associated with being a parent.
*$p < .09$; **$p < .05$; ***$p < .01$.

TABLE 3
Hierarchical Multiple Regression Analysis Predicting Global Life Quality at the Final Interview

	Initially Infertile		*Presumed Fertile*	
	Women (n = *174*)	*Men* (n = *174*)	*Women* (n = *74*)	*Men* (n = *74*)
Step 1				
Global life quality at the initial interview	.48**	.45**	.44**	.44**
Parental status[a]	.21**	.02	–.05	.09
Adjusted R^2 (percentage)	24.76	19.40	16.66	19.38
Step 2				
Home stress	–.15*	.00	–.02	.05
Personal control	.42**	.34**	.54**	.30**
Network support	.14*	.20**	.16	.14
Spouse conflict	–.02	–.29**	–.14	–.05
Escape coping	–.07	–.10*	–.11	–.31*
Adjusted R^2 (percentage)	49.66	57.18	59.32	45.60

NOTE: Standardized beta coefficients are presented in the table.
a. Positive scores associated with being a parent.
*$p < .05$; **$p < .01$.

Global life quality. As expected, global life quality at the initial interview was a significant positive predictor of global life quality 2 years later (see Table 3). Being a parent was significantly positively related to global life quality only for infertile women. Home life stress was also significantly negatively related to global life quality only for infertile women. Personal control was significantly positively related to global life quality for all groups of participants. Network social support was significantly positively related to global life quality for infertile women and men. Interpersonal conflict from one's spouse was a significant negative predictor of global life quality only for infertile men. Escape coping was significantly negatively related to global life quality for infertile and fertile men. None of the other variables in Table 1 were significant multivariate predictors of global life quality. The amount of variance explained in global life quality ranged from 45% to 59% depending on the subgroup (see Table 3).

DISCUSSION

Before considering the implications of this study's results, several caveats should be made. The infertile and fertile participants in this study were not randomly selected from the population at large; instead they came principally from physicians' offices and marriage license application lists. Replication of these results with couples who did not seek treatment for infertility and with minority and low-income couples would provide an important extension of these findings.

Although there were fewer fertile than infertile couples, the number of fertile women and men was adequate to detect large effects (as were found) in multivariate analyses of this complexity (Green, 1991). Replication of the findings with fertile couples from different sources and backgrounds is needed.

In a multivariate context, which included controlling for initial levels of marital life quality, parenthood had a negative impact on the marital life quality of infertile women and men and fertile women, whereas it was unrelated to the marital life quality of fertile men. Past research has demonstrated that the negative effects of becoming a parent are usually stronger for women than for men; thus the results for the fertile couples correspond to the existing literature (Belsky & Pensky, 1988; Ruble et al., 1988). Female and male members of infertile couples experience a great deal of stress and anxiety, both while trying to achieve pregnancy and during pregnancy (Wright et al., 1991). This increased anxiety, coupled

with idealistic expectations about what parenting an infant entails, produces diminished marital life quality for some infertile women and men. One infertile woman who became the mother of twins told the interviewer, "I thought having a baby would make me happy. I didn't realize how much work it would be. . . . I can't do anything for myself, miss working, can't go out . . . my husband and I take out our worry and frustration on each other."

For infertile women, parenthood was positively related to global life quality; for all other groups of study participants, becoming a parent was unrelated to global life quality. This finding demonstrates that the greater stress experienced by infertile women while they cope with infertility (Freeman et al., 1985; Wright et al., 1991) is counterbalanced by greater life satisfaction if they successfully achieve the parenting status they struggled so hard to attain. Despite the diminished marital life quality experienced by infertile women who had become parents, their enthusiasm about being a mother enhanced their global life quality. As one infertile woman in this study stated, "Motherhood is a unique role—a mother is the most important person to her child." Another infertile woman said, "It is such a wonderful experience to have a child that it completely overshadows all the stress and inconvenience which was caused by the fertility treatments."

Other findings replicate and extend those found in the infertility, stress, coping, and life quality literatures (Abbey & Andrews, 1985; Headey & Wearing, 1990; Kessler et al., 1985). In most respects, the psychosocial predictors of life quality were highly similar for women and men from infertile and fertile couples. In bivariate analyses, personal control, network social support, spouse social support, and frequency of intercourse were consistent positive correlates of life quality, whereas stress, spouse interpersonal conflict, and escape coping were significant negative correlates of life quality for all subgroups (for at least one life quality measure). Many of these effects remained significant after controlling for initial levels of life quality. Problem-solving coping was not a strong or consistent predictor of life quality. Stanton et al. (1992) also found that escape, but not problem solving, coping was significantly related to infertile women's and men's experienced distress. Despite the intuitive appeal of these concepts, results in the coping literature have been mixed and often vary depending on the population and the type of stressor studied (Folkman & Lazarus, 1985; Headey & Wearing, 1990).

As predicted, spouse-oriented variables such as spouse support and frequency of intercourse were more strongly related to marital than to global life quality. In contrast, personal control and escape coping, more

general psychological concepts, were more strongly related to global than to marital life quality. Although there is spillover from one life domain to another, each has some unique determinants.

In summary, the predictors of life quality are in many ways similar for members of infertile and fertile couples. Psychosocial resources, such as personal control and social support, enhanced the perceived life quality of women and men, infertile and fertile, and couples with and without children. Being the parent of an infant or young child diminished the marital life quality of women in infertile and fertile couples and men in infertile couples. Being a parent enhanced the global life quality of infertile women, who had put the greatest effort into achieving parenthood. Further research is needed to determine if these effects persist or diminish as these children and parents mature.

Physicians, nurses, social workers, and other professionals who work with infertile couples may want to prepare their clients for the changes in well-being that can be associated with achieving parenthood. Members of infertile couples may be alarmed by their reduced marital life quality believing that it is uniquely their problem rather than a common aspect of the transition to parenthood. Previously infertile parents may feel they have no right to complain and that everything has to be perfect after they have devoted so much time and money to having a child. If this issue is openly discussed during pregnancy or adoption proceedings, these parents may more realistically appraise their response and feel more adequate about their parenting skills.

NOTES

1. One husband did not complete high school, however his wife had and their income fell within the required range.

2. One infertile couple had twins who died within 1 hour of their birth. Because this article focuses on the experience of parenting a child, this couple is treated as nonparents in the analyses.

3. A number of preliminary analyses were conducted to compare different groups of infertile participants. One set of preliminary analyses compared infertile couples who were parents and those who were not on the demographic and treatment variables measured at the initial interview (e.g., age, number of years married, income, education, length of time trying to have a child, number of tests and treatments received). Only income was a significant predictor of parenting status. Infertile couples who became parents had a significantly higher income than those who did not become parents, $F(1, 169) = 5.57$, $p < .02$; presumably their higher income allowed them to pay for expensive services such as in vitro fertilization and adoption. In a second set of analyses, separate bivariate analyses of the measures described in this article were conducted for infertile couples who became parents through birth as

compared to those who became parents through adoption. The pattern of results was the same for both groups so they are combined in the analyses reported in this article.

4. Additional analyses were conducted in which parent and nonparent subgroups were analyzed separately (further dividing the four groups included in Table 1 for a total of eight subgroups). The pattern of relationships found between marital and global life quality and the psychosocial variables did not differ for parents and nonparents. Consequently, parents and nonparents were combined, and parenting status is treated as a dummy variable.

5. In another set of analyses, fertility status was treated as a dummy variable and a series of interaction terms were created to examine the interactions between parenting and fertility status. The pattern of results was basically similar to those presented in the text and we felt that the subgroup results were easier to understand.

6. Another series of multiple regression analyses were completed in which initial scores on the dependent variable were not included as predictor variables. The magnitude of some betas differed from those presented in Tables 2 and 3, but the pattern of results was similar.

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