

L. JILL HALMAN, RN, BSN, MPH, PHD

FRANK M. ANDREWS, PHD

ANTONIA ABBEY, PHD

## *Gender Differences and Perceptions About Childbearing Among Infertile Couples*

**Objective:** *To explore gender differences and responses of infertile couples to childbearing issues.*

**Design:** *Data analysis from the first wave of a larger three-wave prospective panel study. Face-to-face interviews with both husbands and wives were conducted.*

**Setting:** *Husbands and wives were interviewed separately in their homes. One was generally interviewed immediately after the other.*

**Participants:** *One hundred sixty-one infertile couples in southeastern Michigan were interviewed in 1988.*

**Measures:** *Variables of interest included the self-recognized source of the fertility problem, the importance of children to individuals, stress associated with infertility treatment, the number of tests and treatments received, the acceptability of indicated treatments, the length of time couples expected it would take to have a child, and the ideal and expected number of children.*

**Results:** *Women experienced significantly more stress from tests and treatment, placed greater importance on having children, were more accepting of indicated treatments, and wanted more children than men did.*

**Conclusions:** *Implications for nurses working with infertile couples are discussed, including provision of emotional support, evaluation of perceptions of success, assessment of couples' expectations, and inclusion of husbands in decision making.*

*Accepted: April 1993*

Many Americans consider being a parent the most important role in life (Link & Darling, 1986). Although recent research shows that childbearing and childrearing values create several forms of ambivalence for American couples (Neal, Groat, & Wicks, 1989), the value of children remains central in the lives of American men and women. The reasons people give for wanting children vary and include philosophical, sociocultural, interpersonal, and intrapsychic motives (Kraft et al., 1980; Lalos, A., Jacobson, Lalos, O., & von Schoultz, 1985). The continued emphasis on the value of children and the importance of having children as part of an individual's role in life can create confusion and uncertainty for couples who experience difficulty having a child. Increased attention to infertility and its treatment during the past 20 years emphasizes the importance of exploring some of the issues surrounding childbearing and decision making for infertile couples within the United States today.

It has been estimated that approximately 8% of the childbearing population in the United States experiences fertility problems (Mosher & Pratt, 1990; Mosher & Pratt, 1991); about half eventually conceive and deliver a child. Increased attention is being paid to infertility and its treatment because there are more people of childbearing age, more effective treatments available, more couples in higher socioeconomic groups who can afford treatment, and more physicians interested in infertility (Mosher & Pratt, 1991; Aral & Cates, 1983).

When couples are confronted with their own infertility, they first consent to and then undergo tests to diagnose the source of the problem. After diagnosis, they choose the interventions acceptable to them to resolve it. At the same time, they may also begin to speculate about the success of the treatment, how long it will take to achieve success, and what will be entailed to have the number of children they want. Infertile people may reconsider the number of children they wanted and how important that number is to them. If a man had wanted a large family, such as four or more children, is that still a realistic goal for him? How many years will it take to be able to conceive and deliver that number of children? Does his wife have that number of childbearing years ahead of her? If she has a career, can she afford to take time away from her job to undergo infertility testing and treatment?

This study explored gender differences and infer-

---

*Increased attention to infertility and its treatment raises the importance of exploring childbearing and decision making for infertile couples.*

---

tile couples' responses to childbearing issues. Variables of interest included the self-recognized source of the fertility problem, the importance of having children, the stress associated with infertility tests and treatments, the number of infertility tests and treatments undergone, the acceptability of indicated treatments, the length of time by which the couple expected to have a child, and the ideal and expected number of children.

### **Literature Review**

While they are diagnosed and treated for infertility, individuals may experience many crises (Menning, 1980). A man diagnosed as having no sperm may make decisions about which interventions to use for this, only to discover later that his partner also has a fertility problem. The authors hypothesized that an individual's feelings about the source of his or her fertility problem and the potential need to reevaluate and change the interventions used will affect how he or she copes with infertility.

Emotional effects of infertility can lead to marital stress. If both husband and wife have fertility problems, they may experience tension about who is to blame (Kraft et al., 1980). An infertile person may fear abandonment by the spouse and may react by emotionally pushing the other away. Some spouses have told their partners that they would understand if they wanted to divorce and marry someone else to have children (Kraft et al., 1980; Mazor 1984).

Marital stress may not be caused by infertility itself but, rather, by the prolonged period of medical evaluation and treatment (Bernstein, Brill, Levin, & Seibel 1992). Medical evaluation may take as little as 3 months or may continue for months and even years until an answer is found. For some couples, the cause of infertility may never be found. Other couples may become trapped in an ongoing cycle of repeated medical treatments (Hirsch & Hirsch, 1989). That is, they become enmeshed in the treatment process itself and lose their ability to appraise their chances of success realistically.

There may be gender differences in the stress couples experience during infertility treatment. Women reportedly are more discontent with the treatment process and are more emotionally invested in finding a resolution to the problem (Hirsch & Hirsch, 1989). Women also experience a more negative impact on their sense of sexual identity and self efficacy than men (Andrews, Abbey, & Halman, 1992). Men experience stress from infertility and its treatment differently. Although there is a high correlation in the stress experienced by both men and women concerning treatment costs and the number of tests and treatments

received, a couple's income, the number of physicians seen, and self-attribution of responsibility have a significant impact on stress levels for men only (Abbey, Halman, and Andrews, 1992).

Freedman, Coombs, and Bumpass (1965) first explored the concepts of ideal and expected number of children, and researchers have continued to explore these concepts for the past 29 years. Although research has been conducted about the number of children couples prefer to have and the variables influencing their decisions, such as time (Udry, 1983), each spouse's gender (Granberg & Granberg, 1985), gender of children born (Coombs & Fernandez, 1978), and intergenerational influences (Thornton, Freedman, Sun, & Chang, 1986), no one has published research findings on these factors for couples facing fertility problems. Are there differences between infertile men's and women's ideal and expected number of children?

### **Methodology**

#### **Subjects and Setting**

This article reflects data analyses performed with selected variables from one wave of a larger three-wave prospective panel study measuring psychosocial factors associated with fertility problems for married couples in southeastern Michigan. For the data analyses, 161 infertile couples, both husbands and wives, were interviewed in 1988. One hundred forty-eight of these couples were nominated by infertility specialists who represented private practices, university-based practices, and specialty areas within infertility. The variety of selection sites helped to ensure that study participants would represent those undergoing infertility treatment. Nine couples were volunteers from support groups such as RESOLVE and the Endometriosis Association, and four were volunteers recruited from newspaper advertisements, marriage license applicants, and referrals by other study participants.

All participants met the criteria of being married, white, and middle class, and having no previous children by either member of the couple. Middle class was defined as having at least a high-school education and a 1987 annual income in the range of \$20,000–\$100,000. White, middle-class couples are the largest group of people using infertility services in the United States (Mosher & Pratt, 1990). In addition, participants

---

***This study was limited to a relatively homogeneous group of infertile couples: married, white, of moderate to high income, and rather highly educated.***

---

met the criteria of having seen an infertility specialist, believing that they were having a difficult time having a baby, and not yet having completed more advanced infertility treatments such as in vitro fertilization. Of the 199 couples who met these criteria, 81% ( $n = 161$ ) participated in the study.

The following were demographic characteristics of this sample population: The age of infertile women ranged from 22 to 42 years, with an average of 32 years; the age of infertile men ranged from 23 to 44 years, with an average 34 years. On average, the infertile couples had been married approximately 6 years. They had been trying to have a child for an average of 29 months. The average annual income in 1987 for participating couples was approximately \$55,000. The men had completed 3 years of college on the average, and women had completed 2 years. Ninety-seven percent of the men and 90% of the women were active members of the labor force.

Face-to-face interviews were conducted by trained field staff members from the Institute for Social Research, Survey Research Center, the University of Michigan. Each participant was interviewed separately for approximately 60 minutes. Generally, one member of a couple was interviewed immediately after the other.

#### **Instrument**

To measure fertility status, participants were asked if they were trying to have a baby; if so, how long had they been trying; and if they thought they were having a difficult time. In the interviews, the words *infertility* or *infertile* were not used. Instead, *fertility problem* was used because it was a phrase the infertile couples were more comfortable with in prestudy interviews.

**Source of the fertility problem.** Individuals were asked to identify the source of their fertility problem with the question, "Fertility problems can be due to physical problems that the wife has, physical problems that the husband has, or physical problems that they both have. Which is true in your case?" If the physical source of the fertility problem was known, the respondent was then asked, "To the best of your knowledge, what are the specific physical reasons, past and present, for this fertility problem?" If the physical source of the fertility problem was unknown, the respondent's answer was coded as unexplained infertility.

**Stress from tests and treatments.** To measure an individual's stress from treatment for a fertility problem, two approaches were used. The first consisted of counting the number of different tests (diagnostic

procedures) the person underwent and the number of times each test was performed. Individual treatments, the procedures designed to treat the fertility problem, were measured by asking whether the individual had received the treatment in the past, was currently using it, or had never used it. After weighting the number of treatments and tests by the inverse of their standard deviations to obtain equal variances, the two measurements were summed to obtain a measurement of stress. In addition, a second approach was explored that took into account differences in the tests and treatments received. For the second approach, a scale was developed to represent the hypotheses that the following would affect the perceived stress resulting from tests or treatments: amount of time required, location, use of and type of anesthetic, amount of physical pain endured, whether or not prior sexual performance was required before the test or treatment could occur, side effects, legal issues, and the biologic relatedness of the desired child. Each variable was weighted according to the most generally accepted medical protocol and then multiplied by the number of times a person had undergone that test.

To determine the strength of the hypothesized measures for the treatment stress, two Pearson  $r$  correlation coefficient matrices were obtained for the variables used in each approach and for 12 questions asked about self-perceived stress from infertility treatment. The questions concerned the following: amount of stress participants felt from tests and treatments; amount of stress they experienced from determining the wife's time of ovulation; to what degree their fertility problem had disrupted their lives; if their lives had changed as a result of their fertility problem; how stressful it was to deal with their fertility problem; amount of stress from work missed to keep test and treatment appointments; and how stress from their fertility problem affected their sex lives, finances, marriage, and relationships with people who had children. The Cronbach alpha coefficient for the self-perceived stress from infertility treatment was .88. Although correlations were found with both approaches, the first approach using the raw cumulative number of tests was a better predictor of stress from infertility tests and treatments for respondents ( $r = .23-.32$ ) than the approach using the weighted items ( $r = .17-.29$ ). Thus, the first approach was used for this study.

**Importance of children.** All individuals were asked three questions developed by the authors about the importance of having children. Five-point Likert-type scales, ranging from *strongly disagree* to *strongly agree*, were applied to "having a child is very important to me," "it's hard to imagine a life without children," and "being a parent is one of the most impor-

tant things a person can do." The Cronbach alpha coefficient was .75.

**Acceptability of indicated treatment methods.** This measurement was derived from two sets of questions. The first asked respondents to list the specific physical reasons, past and present, for their fertility problems. The second asked respondents to indicate, on a five-point Likert-type scale ranging from *strongly opposed* to *strongly in favor*, how acceptable 11 different treatments were to them. The respondents' feelings about the methods used to have a child were then matched to all methods that could possibly be prescribed or used for that couple to achieve having a child, given their specific fertility problem.

**Length of time by which couples expected to have a child.** All couples were asked, "What is your best estimate of when you will have a child, including adopted children—how many months or years?" The responses were converted to months.

**Ideal number of children.** Although the Coomb's IN scale for number preference of children is often used to measure an individual's preference for children (Coomb's & Fernandez, 1978), it was not used for this

study because of the potential sensitivity of repeatedly asking infertile couples about the number of children they wanted to have if they were unable to have their original ideal number. The ideal number of children in the study was measured by asking, "Ideally, if life could be just the way you want it to be, how many children would you have?" (Freedman & Goldberg, 1977) Interviewers were instructed to inform the respondents, if they raised the question, that this number included adopted children.

**Expected number of children.** The expected number of children in this study was derived from the mean of answers to three questions:

1. Sometimes the number of children people want differs from the number they have. How many children do you expect to have by the time your family is completed?
2. What do you think is the largest number of children you will probably have, including adopted children?
3. What do you think is the smallest number of children you will probably have, including adopted children?

These questions were derived from previous work by Freedman and Goldberg (1977).

**Table 1.**  
**Perceptions and Expectations About Childbearing**

	<i>Men</i>		<i>Women</i>		<i>Paired t test</i> ( <i>t</i> value)
	Mean ( <i>N</i> )	<i>SD</i>	Mean ( <i>N</i> )	<i>SD</i>	
Number of tests and treatments	5.5 (161) <sup>a</sup>	5.3	16.3 (161)	11.2	† (-14.05)
Self-perceived stress from tests and treatments	2.1 (152)	.6	2.6 (160)	.7	† (-8.9)
Importance of children	3.8 (161)	.9	4.2 (161)	.8	† (-6.25)
Acceptability of indicated treatment	3.9 (143)	.9	4.1 (154)	.7	† (-4.12)
Time until expect child	19.7 months (158)	13.3	18.8 months (160)	12.0	Not Significant (NS) (0.74)
Ideal number of children	2.6 (160)	.9	2.8 (161)	1.0	* (-2.55)
Expected number of children	1.7 (161)	.7	1.7 (161)	.7	NS (-0.04)

\*  $p < .01$ . †  $p < .001$ .

<sup>a</sup> Numbers in parentheses represent *N*.

## Results

### Source of Fertility Problem

Within the sample (men's and women's responses combined) used in this study, 46% of the fertility problems stemmed from the wife's reproductive system, 10% from the husband's reproductive system, 30% from both, and 14% were of unknown origin. Among couples with known causes of infertility, 53% were because of female factors, 12% because of male factors, and 35% because of both. Examination of respondent self-reports by gender about the source of fertility problems shows only small differences. Eight percent of the men reported that fertility problems were a result of male factors, 46% reported female factors, 31% reported both male and female factors, and 15% of all men reported unexplained infertility. Twelve percent of the women reported that fertility problems were a result of male factors, 47% reported female factors, 29% reported both male and female factors, and 12% reported unexplained infertility. Women attributed the cause of the fertility problem to a male factor slightly more often than men did, and men reported having a slightly higher incidence of unexplained infertility than women.

### Perceptions and Expectations About Childbearing

Various perceptions and expectations about childbearing were examined for possible gender differences (see Table 1). Number of tests and treatments received, self-perceived stress from tests and treatments, the importance of children, the acceptability of the indicated treatment, and the ideal number of children all showed significant effects for gender. Women underwent more tests and treatment and exhibited more stress from them than men did. Women placed more importance on having children than men did (although men said children were important to them), were more accepting of the indicated treatment, and their ideal number of children was larger. There was no significant difference in men's or women's expectations for the amount of time it would take for them to have a child. Men expected to have a child in approximately 20 months and women in approximately 19

---

*Infertile women experienced more stress from tests and treatment, placed greater importance on having children, were more accepting of indicated treatment, and wanted more children than men did.*

---

---

*The respondents in this study differed in the source of their fertility problems from the larger infertile population in the United States because male factor infertility was underrepresented.*

---

months. Nor was there any significant difference between men's and women's expectations for the number of children they would eventually have, with both men and women expecting to have 1.7 children.

## Discussion

The causes of fertility problems are many and varied, and a couple may have several. Nationally, among couples with diagnosed fertility problems, 40% of the problems are with the wife's reproductive system, 30% with the husband's, and 30% with both (Benson, 1983). However, the infertility of 10–15% of couples remains undiagnosed, even after a complete medical examination (Moghissi & Wallach, 1983). The gender source of the fertility problem among couples with known causes of infertility in this study was not the same as shown with the national statistics. In this study, 53% of the couples had a fertility problem as a result of female factors, 12% as a result of male factors, and 35% of both male and female factors. The cause of infertility among approximately 14% of the couples in this study was unknown. Thus, this study demonstrated a higher rate of female infertility and a lower rate of male infertility than do national findings. The differences may be due to chance or to self-selection. Some couples whose problem stemmed from a male factor might have been concerned about the legal implications of the interventions (such as artificial insemination with donor's sperm) available to them and might have chosen not to participate. Additionally, the gender source of the fertility problem was self-identified by respondents, whereas national statistics generally reflect physician diagnoses of fertility problems.

Measuring stress from tests and treatments is important for constructing scales and determining gender differences. Using the number of tests and treatments participants had was a good, if not a better, measurement of stress than the more complicated scale measuring numerous potential stresses. The implications of these findings have importance for health-care providers. When a woman is evaluated for infertility, she undergoes a wide range of tests from daily basal body temperatures, to blood draws, to laparoscopy. These interventions are fairly common for a

thorough evaluation. Thus, a woman having her blood drawn for a hormone-level measurement may feel the same amount of stress as a woman scheduled for laparoscopy. It may be that any diagnostic test for infertility is highly stressful to a woman because it may determine why she is infertile and that may threaten her sexual identity. The same emotional support may be needed for a simple, noninvasive blood draw as for those procedures considered more invasive. This finding also helps to explain why many women find the taking of their daily basal body temperature so stressful. As one woman in this study stated, "You can't make choices which other people can make. I can't even go to the bathroom in the morning without first sticking a thermometer in my mouth!"

The finding that women experience significantly more stress from tests and treatments than do men is not surprising. Other researchers have stated that infertility treatments tend to focus more on women than on men (Link & Darling, 1986; Griel, Leitko, & Porter, 1988). It is expected that the person undergoing more tests and treatments is the person experiencing more stress. It should be noted that men experience stress from the tests and treatment, but not the same amount as their wives experience.

The importance of children to an individual and the acceptability of indicated treatment showed statistically significant gender differences, with women scoring higher than men on each variable. Although the effect was statistically significant, both men and women said children were important to them, and both were accepting of the treatment indicated for their specific fertility problems.

Both infertile men and women wanted more children than they expected to have, and women had a statistically significant larger ideal number than men. What caused this difference? One possible explanation is that because infertility treatments are often concentrated on the woman, she may become more focused on the end product, a child. Women have also been socialized from an early age to be concerned with pregnancy, childbirth, and raising children. This has been used to explain why the wife usually initiates the infertility investigation (Sundby, 1988). However, when confronted with the possibility of having either no children or a limited number of children, both men and women lowered their expectations. Freedman et al.'s earlier findings (1965) and Udry's hypothesis (1983) that the health of the wife, or in this instance her infertility, could have a negative impact on the expected number of children support the finding for a lowered expected number of children among infertile people. There was no difference between men and women concerning the number of children they then expected to have. Men and women were also rela-

---

***Nurses need to provide emotional support, evaluate perceptions about treatment success, assess expectations for children, and include husbands in decision making.***

---

tively close in their estimation of the time it would take to have their first child.

### ***Limitations***

This study was limited to a relatively homogeneous group of infertile couples: married, white, of moderate to high income, and rather highly educated. Thus, these results cannot be generalized to a more diverse population of infertile couples. However, as was stated previously, the group studied represents the largest group of people receiving infertility services in the United States.

Another limitation is the representativeness of the infertile couples to the infertile population in the United States. The respondents in this study differed in the source of their fertility problems because male factor infertility was underrepresented.

### ***Nursing Implications***

These findings have particular importance regarding the role of the nurse with infertile couples. Nurses can be readily available to infertile people and can attend to their concerns, fears, expectations, and questions. Although some nurses may be concerned about saying the wrong thing or of not knowing how to respond, it is important for them to show compassion and a willingness to listen (Davis & Dearman, 1992). A woman in this study emphasized the importance of not wanting "other people's impressions laid on us about how we are supposed to feel." Instead, nurses should focus on listening to what an individual is saying.

Nurses can also provide emotional support for infertile people scheduled for infertility tests or treatments. Any test may be emotionally stressful because it is a reminder of the person's fertility problem and can have an impact on his or her sexual identity. Because this study shows that women experience greater stress and undergo more tests and treatments than men, nurses can use their access to provide emotional support for them.

Although respondents accepted the treatments indicated for their particular fertility problems, it is important for nurses to understand that there are varying

degrees of acceptance of various treatment procedures (Halman, Abbey, & Andrews, 1992). Infertile people need to be able to question the appropriateness of treatments and to have adequate time to make decisions. Because women may be more accepting of treatment but experience more stress from it, it is even more urgent for nurses to evaluate patients' perceptions of possible success with specific treatments. One can understand the optimism individuals may feel after finally learning why they are having problems conceiving and that treatment is available. However, there are no guarantees that fertility treatment will succeed. Each treatment has a different degree of success, and each requires time for success to be achieved. Although they may accept their need for treatment, couples with fertility problems may continue to experience the same frustrations and disappointments after treatment has begun and months pass without a viable pregnancy.

Although infertile couples generally agree on their expected number of children, nurses need to assess their expectations about how soon they can experience success with treatment and how many children they will have. Nurses may want to discuss this topic explicitly with older infertile individuals who strongly desire several children to ensure that their expectations are realistic or possibly to refer them to an appropriate source that will help them appraise the number of children they are likely to have.

Finally, nurses should include the husband in the decision making, provide him with emotional support, and assess his feelings about the number of children he expects. Unfortunately, because the husband is not usually seen in the infertility specialist's office, he easily can be overlooked even though it is the couple who is in need of treatment and who will ultimately care for and raise the resultant child. As one woman stated, "I wish someone would talk to my husband more and discuss his feelings."

## Summary

This study has explored gender differences among infertile couples, specifically the gender source of the fertility problem, the stress associated with tests and treatments, the acceptability of indicated treatments, the length of time in which the couple expects to have a child, and the number of children desired and expected. It found that women experienced more stress from tests and treatment than men, placed greater importance on having children, were more accepting of indicated treatment, and wanted more children. Men and women had the same expectations about the time it would take to have a child and the expected number of children.

## Acknowledgment

This work was sponsored by the National Institute for Child Health and Human Development, grant #HD21240.

## References

- Abbey, A., Halman, L. J., & Andrews, F. M. (1992). Psychosocial, treatment and demographic predictors of the stress associated with infertility. *Fertility and Sterility*, *57*, 122-128.
- Andrews, F. M., Abbey, A., & Halman, L. J. (1992). Is fertility problem stress different? The dynamics of stress in fertile and infertile couples. *Fertility and Sterility*, *57*, 1247-1253.
- Aral, S. O., & Cates, W. (1983). The increasing concern with infertility: Why now? *Journal of the American Medical Association*, *250*, 2327-2331.
- Benson, R. D. (1983). *Handbook of Obstetrics and Gynecology*. Los Altos, CA: Lange Medical Publishers.
- Bernstein, J., Brill, M., Levin, S., & Seibel, M. (1992). Coping with infertility: A new nursing perspective. *NAACOG'S Clinical Issues in Perinatal and Women's Health Nursing*, *3*, 335-342.
- Coombs, L. C., & Fernandez, D. (1978). Husband-wife agreement about reproductive goals. *Demography*, *15*, 57-73.
- Davis, D. C., & Dearman, C. N. (1992). Coping strategies of infertile women. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, *29*, 221-228.
- Freedman, R., Coombs, L. C., & Bumpass, L. (1965). Stability and change in expectations and family size: A longitudinal study. *Demography*, *2*, 250-275.
- Freedman, R., & Goldberg, D. (1977). *1962 Detroit Area Study: Family Growth in Detroit. 2nd ICPSR Edition*. Ann Arbor: Interuniversity Consortium for Political and Social Research.
- Granberg, D., & Granberg, B. W. (1985). A search for gender differences on fertility related attitudes: Questioning the relevance of sociobiology theory for understanding social psychological aspects of human reproduction. *Psychology of Women Quarterly*, *9*, 431-437.
- Griel, A., Leitko, T. A., & Porter, K. L. (1988). Infertility: His and hers. *Gender and Society*, *2*, 172-199.
- Halman, L. J., Abbey, A., & Andrews, F. M. (1992). Attitudes about infertility interventions among fertile and infertile couples. *American Journal of Public Health*, *82*, 191-194.
- Hirsch, A. M., & Hirsch, S. M. (1989). The effect of infertility on marriage and self concept. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, *18*, 13-20.
- Kraft, A., Palombo, J., Mitchell, D., Dean, C., Meyers, S., & Schmidt, A. W. (1980). The psychological dimensions of infertility. *American Journal of Orthopsychiatry*, *50*, 618-628.
- Lalos, A., Jacobsson, L., Lalos, O., & von Schoultz, B. (1985). The wish to have a child: A pilot-study of infertile couples. *Acta Psychiatrica Scandinavica*, *72*, 476-481.
- Link, P. W., & Darling, C. A. (1986). Couples undergoing

- treatment for infertility: Dimensions of life satisfaction. *Journal of Sex and Marital Therapy*, 12, 46-59.
- Mazor, M. D. (1984). *Emotional reactions to infertility*. In M. D. Mazor and H. F. Simons, (Eds.) *Infertility: Medical, Emotional and Social Considerations*. New York: Human Sciences Press, Inc.
- Menning, Barbara E. (1980). The emotional needs of infertile couples. *Fertility and Sterility*, 34, 313-319.
- Moghissi, K. S., & Wallach, E. E. (1983). Unexplained fertility. *Fertility and Sterility*, 39, 5-19.
- Mosher, W. D., & Pratt, W. F. (1990). Fecundity and infertility in the United States, 1965-88. *Advance Data*, 192, 1-12.
- Mosher, W. D., & Pratt, W. F. (1991). Fecundity and infertility in the United States: Incidence and trends. *Fertility and Sterility*, 56, 192-193.
- Neal, A. G., Groat, H. T., & Wicks, J. W. (1989). Attitudes about having children: A study of 600 couples in the early years of marriage. *Journal of Marriage and the Family*, 51, 313-328.
- Sundby, J. (1988). Psychological consequences of unwanted infertility, its investigation and treatment. *Nordic Psykiatriske Tidsskr*, 42, 29-33.
- Thornton, A., Freedman, R., Sun, T. H., & Chang, M. C. (1986). Intergenerational relations and reproductive behavior in Taiwan. *Demography*, 23, 185-197.
- Udry, J. R. (1983). Do couples make fertility plans one birth at a time? *Demography*, 20, 117-128.

Address for correspondence: L. Jill Halman, RN, BSN, MPH, PhD, Department of Epidemiology, School of Public Health, University of Michigan, 109 Observatory, Ann Arbor, MI 48109-2029.

*L. Jill Halman is a research investigator at the Institute for Social Research, The University of Michigan, and a research fellow at the Center for Nursing Research, The University of Michigan, Ann Arbor.*

*Frank M. Andrews is a distinguished research scientist at the Institute for Social Research, The University of Michigan, and a professor of population planning and international health at the School of Public Health, The University of Michigan, Ann Arbor.*

*Antonia Abbey is an adjunct associate research scientist at the Institute for Social Research, The University of Michigan, Ann Arbor, and an associate professor of community medicine, Wayne State University, Detroit.*