Income Disparities in Medical Helpseeking for Infertility

Population Association of America 2012 Annual Meeting
San Francisco, California

Topic: Fertility, Family Planning, Sexual Behavior, and Reproductive Health
Session 89: Disparities in Reproductive Health and Fertility

Adrienne L. Riegle
Department of Sociology
Iowa State University
ariegle@iastate.edu

This research uses data from the National Survey of Fertility Barriers (NSFB), that was funded by grant R01-HD044144 from the National Institute of Child Health and Development (NICHD) entitled "Infertility: Pathways and Psychological Outcomes." Professor Lynn K. White at the University of Nebraska-Lincoln was the Principal Investigator for the first two years of the project. Following her retirement, Professor David R. Johnson from Penn State who was an investigator on the project assumed the PI role on the project. This study was a collaborative effort of researchers at the University of Nebraska-Lincoln, Penn State, Alfred University, the University of Connecticut, and The University of Nebraska Medical Center. Persons interested in obtaining the public use form of this data should visit the Simple Online Data Archive for Population Studies at the Pennsylvania State University website (http://sodapop.pop.psu.edu/data-collections/nsfb/index_html).

Abstract:

Research on infertility has increased significantly in recent decades. However, previous studies have focused almost exclusively on middle and upper-class women, despite higher rates of infertility among low-income and non-White women. Using data from the National Survey of Fertility Barriers (NSFB), a newly-released, nationwide probability sample of U.S. childbearing-aged women, this study examines how income, particularly poverty status, shapes women's likelihood of medical helpseeking for infertility (i.e. self-identifying fertility problems and talking to a medical provider about ways to have a baby). Results show that women >300% poverty have significantly higher odds of thinking they might have trouble getting pregnant and thinking they might have a fertility problem. Poverty status does not distinguish whether or not women have talked to a medical provider. These findings indicate that income disparities emerge very early in the infertility helpseeking process, beginning with women's perceptions of their own fertility.

INTRODUCTION

Over the past few decades, the study of infertility has increased significantly in both the medical and social sciences to the extent that it has been identified as a public health priority by the Centers for Disease Control and Prevention (CDC, 2010; King & Davis, 2006; Macaluso et al., 2010). Infertility, generally defined as the inability to produce a biological child, has commonly been thought of as a White, middle-class women's problem (Bell, 2009). This belief is reinforced by the fact that most infertility research consists of clinic-based samples of high-income women, when in fact numerous studies indicate that low-income and non-White women actually have higher rates of infertility (Chandra, Martinez, Mosher, Abma, & Jones, 2005; Greil, Slauson-Blevins, & McQuillan, 2010; Inhorn, Ceballo, & Nachtigall, 2009; Shanley & Asch, 2009). Yet, aside from the qualitative work of Bell (2009, 2010) and Inhorn et al. (2009), few studies have focused specifically on the infertility experiences of these groups. Those that have relied on clinic-based samples (Jain, 2006; Smith, 2011).

Medical help is an increasingly important component of women's infertility experiences. In particular, the use of assisted reproductive technology (ART) has nearly doubled between 1998 and 2007 (CDC, 2010). The literature has largely overlooked the unbalanced rates of ART use by low-income or non-White patients. For instance, even though Smith et al. (2011) set out to examine differences in rates of ART by socioeconomic status, their analytic sample was limited to households with annual incomes greater than $60,000, leaving poorer households unstudied. In contrast, most attention to poor women has been directed toward *preventing* them from having children (Shapiro, Fischer, & Diana, 1983). Furthermore, portrayals in both media and medical facilities typically depict only White, middle-class women and heterosexual couples seeking help in the quest to conceive their own biological offspring (Franklin, 1990). This contributes to the

stereotype of low-income women being both excessively fertile and unfit to mother (Bell, 2009, 2010; Ceballo, 1999).

Previous Work

Bell (2009, 2010) conducted a qualitative study of poor women experiencing infertility. Of Bell's 20 participants, all had annual household incomes under $35,000, eleven were unemployed, and eight received no education beyond high school. Results indicated that not only financial barriers contributed to low-income women's underutilization of medical treatments for infertility. The medicalization of infertility itself acted as a social control mechanism through Bell's (2010) participants' experiences of classism (i.e. inability to access standard appointment times). Jain (2006) examined socioeconomic differences based on the race and ethnicity of infertility patients presenting to a large fertility center in a state with mandated insurance coverage of infertility treatment. Despite the mandated coverage, racial disparities persisted. Jain's findings showed significant differences in the characteristics of the patients versus the state's population, with White, highly educated, wealthy women much more likely to receive treatment. Additionally, the length of time before African American women sought care was significantly longer than White women.

Rationale and Study Goals

Research regarding disparities in infertility treatment has considerable implications for the realm of reproductive health and medical inequalities (Jain, 2006). King and Davis (2006), of the Center for Population Research of the National Institutes of Health (NIH), introduced a special collection of reports based on a scientific workshop held in 2005 to address infertility prevention and treatment and to spur collaboration between clinicians and social scientists. Based on these various reports from clinic samples, interviews, and nationally representative data, King and

Davis (2006) suggested that disparities in infertility and reproductive health exist at various levels including the likelihood of facing infertility, difference in diagnosis by income, race or ethnicity, access to resources (income and insurance coverage) in obtaining treatment, and response to and outcomes of treatment. Yet few empirical studies have comprehensively examined these disparities since this special workshop. The present research is useful as it has the potential to shape social conditions and public discussion that may lead to increased access to infertility treatments for women from at-risk populations (Greil, McQuillan, Shreffler, Johnson, & Slauson-Blevins, 2011). Moreover, how women of low socioeconomic status experience infertility has significant importance for both policymakers and health professionals. Interest groups continue to lobby state legislatures for mandated coverage of infertility procedures (Bitler & Schmidt, 2006; Shanley & Asch, 2009), which is particularly timely as the United States moves forward with changes in health care coverage and the Affordable Care Act of 2010.

The present study seeks to overcome gaps in the literature regarding the association between economic status and the experience of infertility using the first wave of the *National Survey of Fertility Barriers* (2009). Despite the increased focus on infertility as a public health issue, less than half of women who meet the medical definition of infertility actually seek and utilize medical treatment. Additionally, lower income women have higher instances of infertility and lower utilization of reproductive health care including medical infertility services (Chandra & Stephen, 2010). Moreover, due to its clinic-based nature (Greil & McQuillan, 2004), there is a tendency for reproductive health research that examines medical infertility treatment to overlook the initial phases that lead someone to present for infertility treatment. Thus, the present analysis examines income differences (specifically poverty status) in whether or not a woman has taken steps to seek medical help for infertility (i.e. thinking of oneself as having trouble getting

pregnant, having fertility problems, and talking with a medical provider). This study aims to contribute to the present understanding of medical helpseeking and treatment for infertility as a *process* (White, McQuillan, & Greil, 2006).

METHOD

Data

Data are from the first wave of the National Survey of Fertility Barriers (NSFB), a random-digit-dialing telephone survey conducted between 2004 and 2007 that was designed to assess a wide range of social and health factors related to reproductive choices and fertility for U.S. women age 25 to 45. This study is particularly beneficial for studying low-income women as it (a) conceptualizes infertility outside of the medical setting expanding beyond clinic-based samples, (b) contains an oversample of minorities, and (c) oversampled women who have ever experienced infertility and those who desired additional children. The NSFB also contains a large set of socioeconomic indicators, including poverty status, economic hardship, receipt of public assistance, and income-to-needs ratios.

Study Procedure

The Survey Research Center at Pennsylvania State University and the Bureau of Sociological Research at the University of Nebraska-Lincoln conducted the random-digit-dialing (RDD) telephone survey. The sample design attempted to match telephone numbers with addresses to send pre-notification letters including either a one- or two-dollar incentive for participation in the study (Johnson et al., 2009). As interviewers contacted a household, they conducted a short screening interview to determine if there were any women living there who were eligible to participate. If more than one woman was eligible, one was selected at random.

If the woman completing the interview indicated that she had a partner (married, cohabiting, or lesbian partner) an attempt was made to interview the partner, usually in a follow-up call to the household. Women who met the age and sample criteria were given the complete interview except if they identified as a woman who had at least one child, planned to have no more children, and indicated no fertility problems. Of the group of women meeting these three screening criteria, only one in five was randomly selected to participate. This is due to the fact that the principal investigators were focused on gleaning information from the general population regarding infertility specific scenarios, and women meeting the above criteria are less likely to have had infertility experiences. The data, when weighted, is representative of childbearing aged women in the 48 contiguous United States in households with a home telephone (Johnson et al., 2009). More information about the study can be found in the methodology report: http://sodapop.pop.psu.edu/codebooks/nsfb/wave1/).

Analytic Sample

Similar to previous research (Greil & McQuillan, 2004; Greil, Shreffler, Schmidt, & McQuillan, 2011), the present sample consists of women who reported experiencing an infertility "episode" in the ten years prior to the interview's first wave (2004-2006), meeting the medical definition of infertility of any period of twelve months or greater in which the woman had regular unprotected intercourse without conceiving (American Society for Reproductive Medicine, 2008), whether they indicated trying to conceive or not. The sample includes women who reported trying and not trying to conceive or were "okay either way" (McQuillan, Greil, & Shreffler, 2010) but experienced a long interval before conception while having regular unprotected sex. It is important to include both women who are trying to conceive and not trying to conceive for a few reasons. First, women who report not trying may have "given up" but could

possibly still conceive with or without medical intervention. Additionally, those who report not trying during their identified infertility episode of at least 12 months may still desire additional children at some point. Also, these infertility episodes include both primary infertility (no prior pregnancies) and secondary infertility (prior pregnancy). These criteria produced a sample of 2,443 women. Cases with missing data on the variables of interest were excluded from the current analyses creating a final analytic sample of 2,301 women.

Measures

The three main dependent variables in the present analysis assess infertile women's likelihood of taking first steps in medical helpseeking including self-identification of trouble having a baby and seeking medical help (Greil & McQuillan, 2004). The first two questions related to the respondents' self-identification as infertile. First, "Do you think of yourself as someone who has, has had, or might have trouble getting pregnant?" Then, "Do you think of yourself as someone who has or has had fertility problems?" Responses for both of these items were coded to create a dichotomous variable of 1 and 0 as "yes/maybe" or "no," respectively. Next, respondents answered the question "Have you ever BEEN to a doctor or a clinic to talk about ways to help you have a baby?" Again, responses were coded as a dichotomous variable, with "yes" and "no" as 1 and 0 respectively.

The focal independent variable in this analysis is a categorical income variable based on percentages of the Federal Poverty Level for 2005. Dummy codes were used to create the following poverty status categories: (1) < 100% poverty; (2) 100-149% poverty; (3) 150-300% poverty; and (4) > 300% poverty. Controls for this analysis include important sociodemographic variables including age, parity, race/ethnicity, relationship status, education, and employment status. The participants' age was measured in years. Parity was measured by whether or not the

respondent has ever given birth. Dummy variables indicate race/ethnicity categories of non-Hispanic White, non-Hispanic Black, Hispanic, and Other. Relationship status was dummy coded to include (1) currently married, (2) ever married (consisting of divorced, separated, or widowed), (3) never married, and (4) cohabiting. Education included the dummy-coded categories of (1) some high school or less, (2) high school or GED, (3) some college, (4) bachelor's degree, and (5) graduate school/graduate degree. Finally, employment status was measured by (1) full time (35 or more hours per week), (2) part-time, (3) "keeping house" (as it is referred to in the data set), or (4) not employed/other.

Analytic Strategy

The initial analysis examined bivariate relationships between poverty status categories and steps in infertility helpseeking using chi-square tests to assess significant differences between groups. In addition, one-way analysis of variance (ANOVA) with Tukey *post hoc* tests analyzed specific group comparisons. Then, binary logistic regression assessed the effect of poverty status on the likelihood of the three aforementioned steps in medical helpseeking for infertility. For each outcome, zero-order models conducted first, followed by full models that controlled for other sociodemographic characteristics of the women in the study. Odds ratios and standard errors were obtained for each model.

RESULTS

Descriptive Results

Table 1 provides descriptive information about the sample. Similar to previous research (Chandra & Stepehen, 2010) only 41% of the present infertile sample indicated thinking of themselves as someone who has, has had, or may have trouble getting pregnant. Even fewer women (28%) think of themselves as someone with a fertility problem. Just over one-quarter

(27%) of women who meet the medical definition for infertility took the initial step in talking with a medical provider about ways to have a baby. Regarding poverty status, about 17% of the sample was below 100% poverty, 9% was between 100 and 149% poverty, and one-quarter (25%) was between 150% and 300% poverty. Slightly under half (49%) was above 300% poverty. The average age of women in the sample was 36 years old. The majority of women in the sample had given birth (86%), were non-Hispanic White (56%), and were currently married (63%) at the time of the study. Non-Hispanic Black respondents made up 19% of the sample, while 16% were Hispanic and 9% were neither these two categories nor Non-Hispanic White. Of those who were not currently married, 18% indicated ever being married (divorced, separated, or widowed), 18% had never been married, and almost 2% were cohabiting. About 16% of the sample had some high school education or less, 32% had finished high school or the equivalent, and 29% attended some college. About 15% had earned a bachelor's degree and 8% had graduate education. Just over half of the sample was employed full-time (51%), 14% worked part time, a substantial minority (25%) was "keeping house" full-time, and 10% was not employed.

Bivariate Results

Table 2 shows the bivariate relationship between poverty status and the three focal dependent variables. Generally, as income level increases, women are significantly more likely to think of themselves as having trouble getting pregnant and having a fertility problem. Income is also positively related to having been to a doctor or clinic about ways to have a baby. For all contrasts, ANOVA results indicated that women above 300% poverty were significantly more likely than all other income groups to indicate thinking of themselves as infertile or going to a doctor or clinic.

Multivariate Results

Logistic regression was used to assess the effect of poverty status on the likelihood of the three aforementioned steps in medical helpseeking (Tables 3, 4, and 5). For each outcome, zero-order models were presented first (Model 1), followed by models controlling for other sociodemographic characteristics of the women in the study (Model 2). Odds ratios and standard errors are reported for each model.

In Table 3, Model 1 shows the effect of poverty status on thinking of oneself as having trouble getting pregnant. Compared to women < 100% poverty, women in all other income categories had significantly higher odds of self-identifying as having trouble getting pregnant. In Model 2 of Table 3, controls of age, parity, race/ethnicity, relationship status, education and employment status are introduced into the model. Women in all income categories at or above 100% poverty continued to have significantly higher odds of self-identifying as having trouble getting pregnant compared to women < 100% poverty. Women above 300% poverty had nearly double the odds of reporting this first step in medical helpseeking. However, with controls introduced, differences in odds between income categories were slightly smaller than in the partial model. Consistent with expectations, those who have never given birth had significantly higher odds of thinking of themselves as having trouble getting pregnant compared to women who have given birth. Hispanic women and those in the Other race category had significantly lower odds of self-identifying as having trouble getting pregnant compared to White women, whereas the odds of non-Hispanic Black women were not significantly different from White women. Similarly, never married women had almost half the odds of thinking of themselves in this way compared to currently married women, yet the odds of cohabiting or ever married women were not significantly different from those currently married. Women not employed had about one and one-half times the odds of identifying as having trouble getting pregnant than their

counterparts employed full-time, while those who worked part time or were "keeping house" did not significantly differ from their full-time employed counterparts. The effects of age and education on thinking of oneself as having trouble getting pregnant were not statistically significant.

Model 1 in Table 4 presents the effect of poverty status on women's perception of themselves as having or having had fertility problems. Those above 300% poverty had over twice the odds of thinking they might have a fertility problem than those below 100% poverty whereas the other income categories were not significantly different from those below 100% poverty. This effect was somewhat reduced in Model 2 which included controls for sociodemographic variables. In this model, those who had never given birth had nearly four times the odds of thinking they might have a fertility problem as compared to women who had given birth. Never married women had about half the odds, and cohabiting women had nearly twice the odds ($p < 0.10$) of thinking they had a fertility problem when compared to their currently married counterparts. Ever married women had the same odds of thinking they might have a fertility problem as currently married women. Those with high school educations or the equivalent had significantly lower odds of thinking they might have a fertility problem than those without high school degrees. Women with any amount of college or graduate education were not significantly different from those with some high school or less. Those keeping house had significantly higher odds ($p < 0.10$) of thinking they might have a fertility problem compared to women employed full time. Other employment statuses did not significantly differ from full-time employed women in this model. The effect of race was not significant in this model.

Table 5 presents regression results for the effect of poverty status on women reporting ever having talked to a medical provider (doctor or clinic) about ways to have a baby. According to

the zero-order model presented in Model 1, women above 300% poverty had over twice the odds of having talked to a medical provider, compared to those below 100% poverty. The other income categories were not significantly different from <100% poverty. However, in Model 2, which included demographic controls, the effect of being above 300% poverty was not statistically significant. Women age 35 or above had significantly higher odds of talking to a medical provider than women below 35. Those who had never given birth had nearly three times the odds of talking with a medical provider about ways to have a baby. Non-Hispanic Black women had significantly lower odds than White women to talk with a medical provider. The odds of talking with a medical provider for Hispanic women or those in the Other race category did not significantly differ from White women. Both ever married and never married women had significantly lower odds of talking with a medical provider than currently married women, whereas cohabiting women did not significantly differ from married women. Those with graduate school education had nearly twice the odds of receiving this form of medical advice compared to those with some high school education or less. The odds of women with all other levels of education did not significantly differ from those with some high school or less. Women employed part time had significantly higher odds of talking to a medical provider than those employed full time, whereas the odds of those who were not employed or "keeping house" did not significantly differ from those employed full-time.

Discussion and Conclusions

As these findings demonstrate, poverty status was an important factor for women in taking the initial steps of medical helpseeking for infertility. In general, women with higher incomes had significantly higher odds of self-identifying as having trouble getting pregnant, and thinking they might have a fertility problem which are important steps in medical helpseeking for

infertility (White et al., 2006). Although the effect of being above 300% poverty on seeing a medical provider for infertility was significant, this effect was reduced to nonsignificance with the introduction of controls. These findings contrast previous findings from the National Survey of Family Growth (Chandra & Stephen, 2010), which found that socioeconomic status (income, education, and insurance status) is consistently a significant indicator of women receiving medical advice for infertility among other forms of medical help.

The present findings contribute to a greater understanding of the process of seeking and receiving medical help for infertility. For instance, results indicating the significant effect of poverty status on the self-identification of possible infertility suggest that the NIH's (King & Davis, 2006) recommendations for infertility research should be expanded. The present study demonstrates that in addition to disparities in the likelihood of facing infertility, income variations in diagnoses, differential access to treatment, and varied outcomes of treatment, attention should also be devoted to the fact that income-based disparities begin to appear much earlier in this process. Income is associated with a woman's odds of recognizing herself as someone who might have trouble getting pregnant and as someone with a fertility problem, the single most important predictor of seeking and receiving medical treatment (White et al., 2006).

Future analyses need to approach the steps in seeking and receiving medical help for infertility and assisted reproductive technology as a complex process. Previous studies have not examined the relationship between income and the initial necessary steps in medical helpseeking for infertility. The effect of income on seeking and receiving infertility treatment manifests itself much earlier in this process than simply presenting for medical advice from a doctor or clinic. Income affects how women think about themselves, their own fertility, and whether or not a woman adopts an "infertile" identity. Whereas lower income women may meet the medical

definition of infertility, they may not consider infertility as an identity options for several possible reasons. First, the current culture of infertility reflects media misconceptions and stereotypes (Franklin, 1990) perpetuated by clinic-based research that depict infertility as a White, middle-class problem (Bell, 2009; Ceballo, 1999). Therefore, the social role of the "infertile woman" may be a less salient option for women outside of these social locations. That is, the infertile identity might not even be on the radar for women of low socioeconomic status or non-White women. Next, social factors such as support and pressure of family and friends to pursue treatment as well as individual factors such as the salience and sense of urgency about desiring (additional) children are likely associated with medical helpseeking for infertility (White et al., 2006). These social and individual factors might be differentially manifested among low-income populations. Further research must continue to investigate both income related disparities as well as these other aspects of the medical helpseeking process as important parts of explaining persistent disparities in reproductive health care.

In addition, future work should address the nuanced relationships between other socioeconomic factors that could influence the other steps in the medical infertility helpseeking process. For instance, as the current results demonstrated, though they did not significantly differ in self-identification as trouble getting pregnant or of a possible fertility problem, women with graduate-level education had almost twice the odds of talking with a medical provider about ways to have a baby than women who had not completed high school. Women with more education are also more likely to have higher incomes and to be covered by private health insurance, which could lead to a greater likelihood of seeking and receiving medical care, testing, assisted reproductive technology, and other forms of reproductive health care. The

complex spectrum of socioeconomic indicators and its relationship to medical helpseeking for infertility remains an area ripe for continued investigation.

This paper provides a much-needed baseline analysis of the relationship between income and medical helpseeking for infertility. This study serves to illuminate broad issues of income inequality and health disparities, while at the same time provide new and detailed information on an important, yet largely hidden, reproductive health care concern among low-income women. Additionally, these results contribute to our understanding of the persistent disparities in utilization of infertility care and disparities that exist in reproductive health by expanding the notion of medical helpseeking to include income differences in women identify their own fertility. This study has significant public policy implications for women and couples seeking access to infertility services. More research and detailed analysis is needed to understand the complex relationship between women's economic status, their experience of infertility, and the extent to which they pursue and receive medical help including assisted reproductive technology. Providing information about all women, regardless of income status, will raise awareness about inequality in a lesser-known aspect of reproductive health. Laws that mandate access to quality fertility care may lead to more equitable access to treatment across socioeconomic status and consequently decrease health disparities in the outcomes of infertile women and couples.

References

American Society for Reproductive Medicine (2008). Definitions of infertility and recurrent pregnancy loss. *Fertility & Sterility, 90*, S60.

Bell, A.V. (2009). "It's Way out of my League": Low-income women's experiences of medicalized infertility. *Gender & Society, 23*(5), 688 – 709.

Bell, A.V. (2010). Beyond (financial) accessibility: inequalities within the medicalisation of infertility. *Sociology of Health & Illness*, *32* (4), 631–646. doi: 10.1111/j.1467-9566.2009.01235.x

Bitler, M., & Schmidt, L. (2006). Health disparities and infertility: Impacts of state-level insurance mandates. *Fertility & Sterility, 85*(4), 858-865.

Ceballo, R. (1999). "The only Black woman walking the face of the earth who cannot have a baby": Two women's stories. In *M.* Romero and A. J. Stewart (Eds.), *Women's untold stories: Breaking silence, talking back, voicing complexity* (pp. 3 – 19). New York: Routledge.

Centers for Disease Control and Prevention. (2010, January 13). *2007 ART Report Section 5-ART Trends 1998-2007.* Retrieved from http://www.cdc.gov/art/ART2007/section5.htm

Chandra, A., Martinez, G. M., Mosher, W. D., Abma, J. C. & Jones, J. (2005). Fertility, family planning, and reproductive health of U.S. women: Data from the 2002 National Survey of Family Growth. *Vital Health Statistics, 23*(25). Atlanta, GA: National Center for Health Statistics. Retrieved from http://www.cdc.gov/nchs/data/series/sr_23/sr23_025.pdf

Chandra, A. & Stephen, E. H. (2010). Infertility service use among U.S. women: 1995 and 2002. *Fertility & Sterility, 93,* 725-736. doi:10.1016/j.fertnstert.2008.10.049

Franklin, S. (1990). Deconstructing "desperateness": The social construction of infertility in popular media representations. In M. McNeil, I. Varcoe, & S. Yearley (Eds.) *The new reproductive technologies.* London: Macmillan.

Greil, A. L. & McQuillan, J. (2004) help-seeking patterns among subfecund women. *Journal of Reporductive and Infant Psychology, 22*, 305-319.

Greil, A. L., McQuillan, J., Shreffler, K. M., Johnson, K. M., & Slauson-Blevins, K. S. (2011). Race-ethnicity and medical services for infertility: Stratified reproduction in a population-based sample of U.S. women. *Journal of Health and Social Behavior, 52*(4), 493-509. doi: 10.1177/0022146511418236

Greil, A. L, Shreffler, K. M., Schmidt, & L., McQuillan, J. (2011). Variation in distress among infertile women: Evidence from a population-based sample. *Paper presented at annual meeting of Population Association of America*, Washington, D. C.

Inhorn, M. C., Ceballo, R., & Nachtigall, R. (2009). Marginalized, invisible, and unwanted: American minority struggles with infertility and assisted conception. In Culley, L., Hudson, N., Van Rooij, F. (Eds.) *Marginalized reproduction: Ethnicity, infertility and reproductive technologies* (pp. 181-197). London: Earthscan.

Jain, T. (2006). Socioeconomic and racial disparities among infertility patients seeking care. *Fertility and Sterility*, *85(*4), 876–81.

Johnson, D. R., McQuillan, J., Jacob, M. C., Greil, A. L., Lacy, N., Scheuble, L. K., … Young, R. (2009). National survey of fertility barriers: Methodology report for wave 1. *National Survey of Fertility Barriers – Working Papers Series.* Paper 1. http://digitalcommons.unl.edu/nsfbworking/1

King, R. B. & Davis, J. (2006). Introduction: Health disparities in infertility. *Fertility & Sterility, 85*(4), 842-843.

Macaluso, M., Wright-Schnapp, T. J., Chandra, A., Johnson, R., Satterwhite, C. L., Pulver, A., … Pollack, L. A. (2010). A public health focus on infertility prevention, detection, and management. *Fertility & Sterility, 93*(1), 16.e1-16.e10.

McQuillan, J., Greil, A.L., Shreffler, K. M. (2010). Pregnancy intentions among women who do not try: Focusing on women who are okay either way. *Maternal and Child Health Journal*, 2010. DOI: 10.1007/s10995-010-0604-9

Shanley, M. L., & Asch, A. (2009). Involuntary childlessness, reproductive technology, and social justice: The medical mask on social illness. *Signs, 34*(4), 851-874.

Shapiro, T. M., Fisher, W., & Diana, A. (1983). Family planning and female sterilization in the United States. *Social Science and Medicine* 23:1847-55.

Smith, J. F., Eisenberg, M. L., Glidden, D., Millstein, S. G., Cedars, M., Walsh, T. J., … Katz, P. P. (2011). Socioeconomic disparities in the use and success of fertility treatments: analysis of data from a prospective cohort in the United States. *Fertility and Sterility 96*(1), 95-101.

White, L., McQuillan, J. & Greil, A. L. (2006). Explaining disparities in treatment seeking: The case of *infertility*. *Fertility & Sterility, 85*(4), 853-57.

Table 1. Description of the Sample according to Key Study Variables ($N = 2,301$)

Characteristic	*n*	*%*	*M*	*SD*
Think of self as having trouble getting pregnant	1,024	40.8		
Think of self as someone with fertility problems	716	28.0		
Ever talked to doctor or clinic for help having baby	704	26.8		
Poverty status				
< 100% poverty	283	16.9		
100-149% poverty	181	8.9		
150-300% poverty	574	25.1		
> 300% poverty	1,236	49.1		
Age (25-45)	2,301		36.0	5.9
<35	925	40.9		
≥ 35	1,376	59.1		
Parity				
Ever given birth	1,920	85.6		
Never given birth	381	14.4		
Race/ethnicity				
Non-Hispanic White	1,238	56.3		
Non-Hispanic Black	530	19.0		
Hispanic	360	15.5		
Other	173	9.1		
Relationship status				
Currently married	1,515	62.6		
Ever married	382	18.2		
Never married	375	17.6		
Cohabiting	29	1.6		
Education				
Some high school or less	195	16.2		
High school/GED	530	32.1		
Some college	766	28.6		
Bachelor's degree	467	14.8		
Grad school/graduate degree	343	8.3		
Employment				
Full time (35+ hours)	1,263	50.5		
Part time	313	14.3		
Keeping house	502	24.7		
Not employed/other	223	10.5		

Note: Weighted frequencies and unweighted Ns from a subsample of infertile (subfecund) women, ages 25-45 from the NSFB, Wave 1.

Table 2. Percentages of medically infertile women who reported various steps in medical helpseeking for infertility

	Percent poverty			
Step in helpseeking	< 100%	100-149%	150-300%	> 300%
R thinks of self as someone who has, has had, or might have trouble getting pregnant	26.9	27.4	38.7	47.3*
R thinks of self as someone who has or has had fertility problems	20.1	18.3	23.9	34.6*
R has been to a doctor or a clinic to talk about ways to have a baby	18.4	18.4	21.5	33.9*

Note: * $p < 0.001$ when compared to all other income categories.

Source: National Survey of Fertility Barriers (NSFB) Wave 1

Table 3. Log Odds of medically infertile women who reported thinking they might have trouble getting pregnant (N = 2,301)

Characteristics	Model 1		Model 2	
	OR	SE	OR	SE
Poverty status				
< 100% poverty				
100-149% poverty	1.64*	0.19	1.44#	0.20
150-300% poverty	1.72***	0.15	1.57**	0.16
> 300% poverty	2.46***	0.13	1.91**	0.16
Age				
<35				
≥ 35			0.97	0.10
Parity				
Ever given birth				
Never given birth			3.38***	0.14
Race/ethnicity				
Non-Hispanic White				
Non-Hispanic Black			0.88	0.13
Hispanic			0.61*	0.15
Other			0.71*	0.17
Relationship status				
Currently married				
Ever married			1.19	0.13
Never married			0.57***	0.15
Cohabiting			1.79	0.38
Education				
Some high school or less				
High school/GED			0.89	0.15
Some college			1.07	0.16
Bachelor's degree			1.05	0.19
Grad school/graduate degree			1.36	0.22
Employment				
Full time (35+ hours)				
Part time			0.95	0.14
Keeping house			1.17	0.12
Not employed/other			1.51*	0.16
Degrees of freedom	3		18	
-2 log likelihood	2854.28		2721.02	

#$p < 0.10$, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

Note: Weighted analyses. Reference category in italics.

Source: National Survey of Fertility Barriers (NSFB) Wave 1

Table 4. Log Odds of medically infertile women who reported thinking they might have a fertility problem (N = 2,301)

Characteristics	Model 1		Model 2	
	OR	SE	OR	SE
Poverty status				
< 100% poverty				
100-149% poverty	0.89	0.23	0.78	0.24
150-300% poverty	1.26	0.17	1.22	0.18
> 300% poverty	2.12***	0.15	1.62*	0.18
Age				
<35				
≥ 35			1.30*	0.11
Parity				
Ever given birth				
Never given birth			3.78***	0.14
Race/ethnicity				
Non-Hispanic White				
Non-Hispanic Black			0.90	0.15
Hispanic			0.87	0.16
Other			1.27	0.17
Relationship status				
Currently married				
Ever married			1.00	0.14
Never married			0.48***	0.17
Cohabiting			1.92#	0.38
Education				
Some high school or less				
High school/GED			.64**	0.17
Some college			0.82	0.17
Bachelor's degree			0.80	0.20
Grad school/graduate degree			0.99	0.23
Employment				
Full time (35+ hours)				
Part time			1.13	0.15
Keeping house			1.28#	0.13
Not employed/other			1.16	0.18
Degrees of freedom	3		18	
-2 log likelihood	2498.98		2360.11	

#$p < 0.10$, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

Note: Weighted analyses. Reference category in italics.

Source: National Survey of Fertility Barriers (NSFB) Wave 1

Table 5. Log Odds of medically infertile women who reported talking to doctor/clinic about ways to have a baby (N = 2,301)

Characteristics	Model 1		Model 2	
	OR	SE	OR	SE
Poverty status				
< 100% poverty				
100-149% poverty	1.00	0.23	0.77	0.24
150-300% poverty	1.21	0.17	0.79	0.19
> 300% poverty	2.26***	0.15	1.10	0.18
Age				
<35				
≥ 35			1.30*	0.11
Parity				
Ever given birth				
Never given birth			2.89***	0.14
Race/ethnicity				
Non-Hispanic White				
Non-Hispanic Black			0.70*	0.16
Hispanic			0.81	0.16
Other			0.98	0.18
Relationship status				
Currently married				
Ever married			0.61**	0.15
Never married			0.28***	0.19
Cohabiting			0.76	0.43
Education				
Some high school or less				
High school/GED			1.06	0.18
Some college			1.33	0.19
Bachelor's degree			1.31	0.21
Grad school/graduate degree			1.95**	0.24
Employment				
Full time (35+ hours)				
Part time			1.36*	0.15
Keeping house			1.16	0.13
Not employed/other			1.02	0.19
Degrees of freedom	3		18	
-2 log likelihood	2441.70		2293.26	

#$p < 0.10$, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

Note: Weighted analyses. Reference category in italics.

Source: National Survey of Fertility Barriers (NSFB) Wave 1