The Link Between Couples' Pregnancy Intentions And Behavior: Does It Matter Who Is Asked?

By Maureen R. Waller and Marianne P. Bitler

Maureen R. Waller is assistant professor, Department of Policy Analysis and Management, Cornell University, Ithaca, NY. Marianne P. Bitler is associate professor, Department of Economics, University of California, Irvine.

CONTEXT: *Previous studies have linked pregnancy intentions with some pregnancy-related behaviors and infant health outcomes. However, most have used only women's reports of intentions and examined only maternal behaviors.*

METHODS: *Baseline data from the Fragile Families and Child Wellbeing Study (1998–2000) are used to examine whether parents of newborns considered abortion upon learning of the pregnancy and whether this measure of pregnancy intention is associated with their behaviors during pregnancy or with infant birth weight. Associations between outcomes and each parent's pregnancy intention are explored with multivariate probit regressions or least squares regressions for 737 married and 2,366 unmarried couples.*

RESULTS: *If at least one parent considered abortion, unmarried mothers had a significantly reduced probability of initiating early prenatal care, and unmarried fathers had a significantly reduced probability of providing cash or in-kind support during the pregnancy. The proportion of mothers receiving care in the first trimester was 12 percentage points lower when the mother only or both parents considered abortion than when neither parent did; depending on which parent reported on fathers' support during pregnancy, the proportion of fathers who provided cash or in-kind assistance was 6–10 percentage points lower when the father only considered abortion and 6–14 points lower when both parents considered abortion than when neither did.*

CONCLUSIONS: *Future research on pregnancy intentions should incorporate both men and women. Understanding men's pregnancy intentions and their associations with early support of mothers may inform discussions of how to encourage men's involvement in family planning, prenatal health care and parenting.*

Perspectives on Sexual and Reproductive Health, 2008, 40(4):194–201, doi: 10.1363/4019408

A large literature examines the links between pregnancy intentions and infant health and development, generally finding that unwanted or mistimed pregnancies are associated with delayed prenatal care and other negative outcomes. Most of this literature has focused on maternal reports of pregnancy intention. A study by Korenman, Kaestner and Joyce[1] looks at both partners' intentions (although only as reported by mothers), and finds that paternal intentions also matter. In this article, we take advantage of data collected from a representative sample of unmarried parents in large urban areas to examine pregnancy intentions from the perspectives of both fathers and mothers, and to investigate paternal as well as maternal behaviors during the pregnancy.

BACKGROUND

In 2001, almost half of pregnancies among U.S. women were unintended, and rates of unintended pregnancies were elevated among women who were unmarried, were 18–24 years old, were low-income, had less than a high school education or belonged to a minority racial or ethnic group.[2] Understanding the consequences of an unintended pregnancy is important, given evidence suggesting that parents' pregnancy intentions are predictive of their children's physical and emotional well-being in both the short and the long term.[3,4] For example, women who report that their pregnancy was unwanted exhibit some behaviors that are negatively associated with early child health, such as late initiation of prenatal care.[4–7] Additionally, mothers' pregnancy intentions have been linked to children's low birth weight,[4,8] although results are mixed and some are not causal.

Previous studies have typically focused on mothers' pregnancy intentions rather than considering the intentions of both parents, in part because most surveys have failed to collect information about paternal intentions. However, a pregnancy that is intended by one partner is not always intended by both partners.[9] One-third of women participating in the 1988 National Survey of Family Growth who had had a live birth in the previous five years reported that their childbearing desires had differed from their partners'; women who were never-married, were teenagers, were black or had less than a high school education were less likely than others to share a desire to have a child with their partners.[10] Furthermore, studies using couple data have shown that examining the reports of both partners may better predict fertility and family outcomes.[9,11,12] Of particular relevance to our study, Korenman, Kaestner and Joyce[1] found that mothers were more likely to report behaviors

associated with adverse health outcomes (e.g., delaying prenatal care) if, by their reports, the pregnancy was unintended by one or both parents than if it was intended by both. Although maternal intentions seemed to matter more than paternal intentions, fathers' intentions were also important.

Despite calls for including men in research on fertility and pregnancy resolution decisions,[9,13,14] studies using couple data have typically relied on women's reports, rather than examining their male partners' intentions directly. The use of such proxy reports may not matter much in analyses of married couples, but unmarried women and those who are relatively disadvantaged may be unable to report their partners' intentions accurately or may be unaware of their partners' preferences.[10,13]

A few studies have examined information reported directly by men, without including women's views. Drawing on a national study of adolescent males, Marsiglio and Shehan[15] found that young men were less likely to support the idea of an unmarried woman's having an abortion if they themselves would accept an unplanned pregnancy or believed that men should be financially responsible for children born following an unplanned pregnancy. A 2007 study of (mostly married) resident fathers showed that those who had not wanted the pregnancy were less likely than those who had wanted it to exhibit paternal warmth to their nine-month-old infants, while those who had wanted the pregnancy sooner than it occurred were more likely than those who said it occurred at about the right time to display nurturing behaviors.[16]

Previous studies have shown that noncustodial fathers' contributions of cash are associated with larger positive impacts on child developmental outcomes than are other sources of income.[17,18] However, little research has examined how fathers' pregnancy intentions are associated with their early economic support of mothers, particularly when men's desires diverge from those of their partner. Likewise, very little is known about how men's pregnancy intentions are related to parents' pregnancy behaviors and outcomes when parents are unmarried or do not live together. Compared with married parents, unmarried parents not only are more likely to have children unintentionally,[4] but also have fewer economic resources; furthermore, their children may be at higher risk for early health problems.[19]

HYPOTHESES

A number of reasons lead us to expect parents' behaviors during pregnancy to be associated with their pregnancy intentions. When a woman is faced with an unintended pregnancy, and particularly if she is unsure whether she will carry the pregnancy to term, she may postpone prenatal care for a variety of reasons—e.g., lack of support from her partner, a lack of insurance coverage at the time she learns of the pregnancy, low income or the challenges of caring for older children. In addition, a woman may not discover an unintended pregnancy as early in gestation as an intended one.[4] Similarly, male partners may be relatively unlikely to provide financial or in-kind support if they are unaware of the pregnancy, have conflicted feelings about the pregnancy or are unsure if the woman will have an abortion.

Korenman, Kaestner and Joyce[1] put forth several hypotheses about how the pregnancy intentions of men or women could influence infant health outcomes. One, the dose-response hypothesis, suggests that having both parents report that a pregnancy was unintended is worse than having one parent report that it was, and having one parent report that a pregnancy was unintended is worse than having neither parent report that it was. Therefore, we would not expect the relationship between having both parents consider abortion and early outcomes to be the same as the relationship between having only one parent consider abortion and those outcomes. A second hypothesis suggests that mothers' intentions are more consequential for birth outcomes than are fathers' intentions, since mothers are more instrumentally involved in the pregnancy.

However, Korenman and colleagues also recognize an alternative hypothesis, which suggests that men's pregnancy intentions will be more consequential if women treat all pregnancies the same regardless of intention, while fathers favor intended pregnancies. If fathers' intentions matter, we would expect outcomes to vary not only by whether the mother considered abortion but also by whether the father did.

If we extend these hypotheses to partners' behaviors during the pregnancy, women may be more likely to delay prenatal care, and men may be less likely to provide support, if both partners report that the pregnancy was unintended than if only one does. At the same time, mothers' intentions may matter more than fathers' for the initiation of prenatal care, and fathers' intentions may matter more than mothers' for paternal contributions.

METHODS

Data

This analysis uses baseline data from the Fragile Families and Child Wellbeing Study, collected in 1998–2000. The Fragile Families Study follows a birth cohort of children in 20 U.S. cities to learn more about the circumstances and experiences of unmarried parents and their children in the early years of their child's life. Sampling was based on hospital of birth, with a goal of representing hospitals accounting for 75% or more of nonmarital births in all cities but the largest two, Chicago and New York. Thus, the sample was representative of nonmarital, but not of marital, births. The total sample includes 4,898 births—3,712 to unmarried parents and 1,186 to a comparison sample of married parents. We use data from the subset of 16 cities where the sample of births to unmarried couples is nationally representative of nonmarital births in cities with populations of more than 200,000.[20] After the

TABLE 1. Percentage of births in the Fragile Families and Child Wellbeing Study, by selected characteristics, according to parents' marital status at the time of the birth, 1998–2000

Characteristic	Unmarried (N=2,366)	Married (N=737)
CHILD		
Gender		
Male	52	56
Female	47	44
Unknown	<1	<1
Single birth		
Yes	98	98
No	2	2
MATERNAL		
Education		
<high school degree	40**	15
High school degree, no college	32**	18
Some college, no four-year degree	24**	29
Four-year degree	3**	38
Unknown	<1	0
Age		
<20	22**	3
20–24	43**	18
25–29	20**	29
≥30	15**	50
Race/ethnicity		
Hispanic	33**	25
Non-Hispanic black	44**	18
Non-Hispanic white	18**	46
Other non-Hispanic	3**	8
Unknown	2	2
PATERNAL		
Interviewed		
Yes	76**	90
No	24**	10
Education		
<high school degree	31**	14
High school degree, no college	26**	19
Some college, no four-year degree	18*	27
Four-year degree	2**	30
Unknown	24**	10
Age		
<20	9**	<1
20–24	29**	10
25–29	18*	22
≥30	20**	58
Unknown	24**	10
Race/ethnicity		
Hispanic	24*	21
Non-Hispanic black	33**	15
Non-Hispanic white	11**	43
Other non-Hispanic	4**	8
Unknown	27**	13
PARENTS' FERTILITY HISTORY		
Has children with another partner		
Mother has	20**	8
Father has	17**	9
Neither has	39**	72
Unknown	24**	10
Total	100	100

*p<.05. **p<.01. *Notes:* Only one birth per couple is included in the data. Percentages may not add to 100 because of rounding. Comparisons across columns were made with t tests of equality of means.

exclusion of one case, for which marital status at baseline was unreported, this subset leaves us with 2,366 births to unmarried couples and 737 births to married couples.

New mothers were initially interviewed in person at the hospital, and the fathers of their children were interviewed either at the hospital or someplace else as soon as possible after the birth. Baseline response rates were high—82% for unmarried and 87% for married mothers; 76% and 88% for their partners, respectively.

Measures

The infant health outcomes we analyze are mothers' reports of the child's birth weight and whether the child was low-birth-weight (2,500 g or less). Our measure of maternal behavior is indicated by whether the mother reported she initiated prenatal care during the first trimester. Paternal behaviors are measured by both parents' reports of whether the father contributed money or in-kind help to the mother during the pregnancy. About one-quarter of fathers did not participate in the baseline survey. Thus, the paternal reports for these measures are missing, and these observations are omitted from the analysis of fathers' reports. Questions about paternal support were asked of unmarried parents only.

Our key independent variables are measures of whether only the mother reported having considered abortion when she learned of the pregnancy, whether only the father reported having considered abortion when he learned of the pregnancy or whether both parents reported having considered abortion when each learned of the pregnancy. In some specifications, we use an indicator for whether at least one parent considered abortion. We also include indicators for whether each parent refused or did not know the answer to these questions and for whether the father did not complete the interview.

Although assessing whether parents considered abortion is an unusual approach to measuring pregnancy intention, we adopted it for a practical reason: The Fragile Families survey did not ask the more standard questions about pregnancy intentions (i.e., whether a parent considered the pregnancy unwanted or mistimed). However, the benefits of having a measure reported independently by the father and the mother outweigh the possible disadvantages of using this indicator. As in most surveys measuring pregnancy intentions, parents were asked this question retrospectively. Yet a question about whether parents had considered abortion may be subject to less social desirability bias than one asking whether an existing child was unwanted. Another advantage is that complicated pregnancies or pregnancies with poor outcomes may lead a parent to retrospectively say that the pregnancy was unwanted, and this could cause researchers to erroneously conclude that unwanted pregnancies had worse outcomes than intended ones. This measure may also be of intrinsic interest, given how little is known about family outcomes in situations where men and women disagreed about terminating a pregnancy.[14]

The measure also may have disadvantages. It indicates whether a partner considered abortion when he or she learned of the pregnancy, but does not take into account that people's views may change as a pregnancy progresses. Additionally, a woman's partner may not learn of a pregnancy as soon as she is aware of it, and the delay may be reflected in his behavior.

We include individual-level controls for maternal, paternal and child characteristics, and for multipartner fertility. Maternal characteristics are education (categorized as less than a high school degree, exactly a high school degree, some college but not a four-year degree, four-year degree or not reported); age (younger than 20, 20–24, 25–29, or 30 or older), race and ethnicity (non-Hispanic black, Hispanic, other non-Hispanic, non-Hispanic white or not reported). Paternal characteristics are similar but also include a category for fathers' age being unreported. Child characteristics are gender (male, female or not reported) and whether the birth was a multiple one. Month of birth dummies are included, to adjust for any systematic correlations between the births in each hospital and time of the year the data were collected, as well as any systematic differences in the characteristics of parents whose child was born in July (the most common month) and those whose child was born in another month; city of birth is controlled for with fixed effects. Multipartner fertility is characterized according to whether the father has more biological children than the mother, the mother has more biological children than the father, the parents have the same number of biological children or this cannot be determined.*

Analytic Techniques

We began by calculating summary statistics for our samples of married and unmarried parents. Then, for the overall samples and for each category of mothers' reports of having considered abortion, we calculated the distribution of fathers' reports of whether they considered abortion; using a contingency table chi-square test, we assessed whether these reports and marital status are statistically independent of each other. Next, we examined child health and parental behavior outcomes for both samples by parents' reports of having considered abortion, using t tests to assess differences between means. Finally, we examined these outcomes as a function of pregnancy intentions at the time the parent learned of the pregnancy, the individual-level characteristics, and fixed effects for the month of birth and city in which the birth took place. In some specifications, we verified the robustness of our findings by restricting the sample to couples in which both partners completed the baseline survey. Although we focus primarily on parents who were unmarried at the time of their child's birth, we present some results for the sample of married parents.

For dichotomous outcomes, we present results of multivariate probit analysis and use chi-square statistics to conduct additional hypothesis tests about the coefficients estimated from these models.† We also present the results of least squares regressions predicting birth weight, with the same righthand side variables as in the categorical analysis. Because the sample design was complex, assuming independence among observations might lead to inappropriate conclusions about inference. To avoid this, our standard errors are adjusted for an arbitrary correlation structure within city, as well as being robust to possible heteroskedasticity.

TABLE 2. Number and percentage distribution of births to unmarried and to married parents, by mother's report of whether she considered abortion when she learned of the pregnancy; and percentage distribution, by father's report of whether he considered abortion when he learned of the pregnancy, according to mother's report of whether she considered abortion

Mother's report	All births		Father's report				
	No.	%, by mother's report	Did not consider abortion	Considered abortion	Did not answer	Not interviewed	Total
Unmarried parents	**2,366**	**100.0**	**59.8**	**15.8**	**0.6**	**23.8**	**100.0**
Did not consider abortion	1,628	68.8	67.0	12.0	0.3	20.8	100.0
Considered abortion	702	29.7	46.2	25.4	0.4	28.1	100.0
Did not answer	36	1.5	0.0	5.6	19.4	75.0	100.0
Married parents	**737**	**100.0**	**86.4**	**3.4**	**0.3**	**9.9**	**100.0**
Did not consider abortion	682	93.0	87.4	2.3	0.1	10.1	100.0
Considered abortion	53	7.2	77.4	15.1	0.0	7.5	100.0
Did not answer	2	<0.1	0.0	50.0	50.0	0.0	100.0

RESULTS

Descriptive Analysis

Married parents in the study have higher levels of education, are older and are less likely to have children with another partner than unmarried parents (Table 1). For example, 38% of married mothers have a four-year college degree, compared with 3% of unmarried mothers; 50% and 15%, respectively, are 30 or older. Roughly one in five unmarried mothers and fathers, but fewer than one in 10 of their married counterparts, have had children with other partners. Married parents are also more likely than unmarried parents to identify themselves as non-Hispanic white (e.g., 43% vs. 11% of fathers) or other

*In the regressions, the omitted reference category for maternal characteristics is non-Hispanic white women who have a four-year college degree and are 30 or older; the omitted reference category for paternal characteristics is non-Hispanic white men who have a four-year college degree and are 30 or older; the omitted category for child characteristics is a female singleton born in July; the omitted category for location is New York; and the omitted fertility category is parents who have the same number of biological children.

†The underlying latent index y^*_{is} has the basic form $y^*_{is}=A_{is}\alpha+X_{is}\beta+S_s+\varepsilon_{is}$, where ε_{is} is distributed standard normal. The observed outcomes y_{is} are 0 if the latent index y^*_{is} is less than zero and 1 otherwise. We model the outcome variables (y_{is}) as a function of various controls X_{is} for child *i* in city *s*. A_{is} are our key independent variables (measures of pregnancy intention). X_{is} are the individual-level controls for the mother, father and child. S_s represent city fixed effects, and ε_{is} represent unobservable determinants.

TABLE 3. Selected birth outcomes and parental behaviors during pregnancy among unmarried and married parents, by parents' reports of whether they considered abortion

Outcome or behavior	Parent reporting having considered abortion					
	Neither	Both	Mother only	Father only	Don't know/ no answer	Father not interviewed
Unmarried parents						
Mean birth weight (lbs.)	7.1	7.0	7.1	6.9	7.0	7.0
Low birth weight	9.7	10.9	9.3	11.1	5.9	8.5
Any prenatal care	97.8	97.2	97.5	99.5	100.0	97.3
Prenatal care initiated in first trimester	81.8	71.0**	70.5**	80.9	62.5	74.3**
Father contributed cash						
Mother's report	92.1	87.0	84.7**	83.5**	57.1**	53.0**
Father's report	94.1	84.0**	91.8	88.7**	75.0**	na
Father contributed in-kind						
Mother's report	91.2	79.8**	82.4**	86.7	42.9**	47.7**
Father's report	94.2	79.9**	90.0*	83.0**	50.0**	na
Married parents						
Mean birth weight (lbs.)	7.5	7.0	7.7	7.4	5.3**	7.5
Low birth weight	3.4	0.0	4.9	6.3	66.7**	4.2
Any prenatal care	99.2	100.0	97.6	100.0	100.0	100.0
Prenatal care initiated in first trimester	91.2	85.7	80.5*	93.8	100.0	83.3*

*Significantly different from figure for "neither" at p<.05. **Significantly different from figure for "neither" at p<.01. *Notes:* Data are percentages unless otherwise noted. na=not applicable.

non-Hispanic (8% vs. 4%), and are less likely to be black (15% vs. 33%) or Hispanic (21% vs. 24%).

A minority of both unmarried and married parents considered abortion, although the proportions were somewhat higher among unmarried parents than among married parents (Table 2, page 197): Thirty percent of unmarried mothers and 16% of unmarried fathers said they considered abortion, compared with 7% of married mothers and 3% of married fathers. Overall, a simple contingency table Pearson chi-square test overwhelmingly rejects that marital status and the parental reports of intendedness are independent (χ^2=973, p=.000).

Although parents' initial thoughts about the pregnancy were most often the same, it was not infrequent for the mother to consider abortion and the father not to or vice versa. For example, among unmarried couples in which the mothers did not consider abortion, 12% of the male partners did; in unmarried couples in which the mothers considered abortion, 46% of the fathers did not. Among married couples in which the mothers considered abortion, 77% of their spouses did not.

Results of t tests reveal numerous differences in parental behaviors and pregnancy outcomes according to parents' pregnancy intentions (Table 3). Early initiation of prenatal care is less frequent among unmarried parents if the mother or both parents considered abortion (71% for each) than if neither parent considered this option (82%). Prenatal care in the first trimester is also less frequent among married parents if the mother only considered abortion (80%) than if neither parent did (91%).

We also see that unmarried men are less likely to provide cash or in-kind contributions to the mother when at least one parent considered abortion than when neither did. For example, among couples in which neither partner considered abortion, 94% of men said that they provided in-kind assistance; the proportion was 80–90% among couples in which one or both parents considered abortion. The overall pattern of results varies by which parent reports paternal contributions. Birth weight and incidence of low birth weight do not vary by parents' reported pregnancy intentions in either sample.

Taken together, the means suggest that parents' behaviors during pregnancy are more significantly related to our measure of pregnancy intention than is their infant's birth weight. Because these simple mean comparisons may merely reflect other differences, however, we turn to multivariate analysis.

Multivariate Analysis

Results from unweighted probit regressions suggest that among unmarried parents, mothers are less likely to initiate prenatal care in the first trimester and fathers are less likely to contribute cash and in-kind support during the pregnancy when both parents considered abortion than when neither did (Table 4).* The marginal effect is a 12-percentage-point lower probability of obtaining early prenatal care when both parents considered abortion. This is a large difference, given that the proportion of unmarried women receiving early care is 82% when neither parent considered abortion.† The marginal effect of both parents' having considered abortion on fathers' cash contributions is either a six- or a 10-percentage-point lower probability, depending on which parent is reporting. The marginal effect of both parents' having considered abortion on father's in-kind contributions is a 10- or 14-percentage-point lower probability, depending on which parent reports on the support.

Having only the mother consider abortion is also negatively associated with mothers' reports of all parental behaviors and with fathers' reports of in-kind help, while having only the father consider abortion is negatively associated with both parents' reports of fathers' cash contributions and with fathers' reports of paternal in-kind contributions. For example, having only the father

*In sensitivity analyses not presented here, we found that the results were similar qualitatively and in statistical significance when we used nationally representative weights in the regressions (results available upon request). Means for the control variables (except month of birth and city) are presented in Table 1.

†One concern may be that we are merely picking up cases in which the mother realized she was pregnant after the first trimester was over; in these cases, it would be impossible for her to initiate prenatal care early. However, in the 2002 National Survey of Family Growth, 95% of women reporting a pregnancy during the previous five years said that they knew they were pregnant by the 13th week (source: National Center for Health Statistics (NCHS), *NSFG Cycle 6 Pregnancy File Codebook,* Hyattsville, MD: NCHS, 2006). Also, we considered the outcome "began prenatal care before the end of the fourth month," and although the implied average marginal effect was smaller, it was not negligible (minus six percentage points).

consider abortion is associated with a six-percentage-point lower probability of paternal reports of cash contributions and a 10-percentage-point lower probability of paternal reports of in-kind support. None of the intention variables is associated with low birth weight for unmarried parents (or, in least squares regressions not reported here, with actual birth weight).

Among married parents, the pattern of the results is similar to what we observe for unmarried parents for initiation of early prenatal care, although the coefficients are imprecisely estimated (not shown). Low birth weight is not associated with any of the measures of pregnancy intention for married parents, although all of the standard errors are large.

One of our objectives was to examine if it matters whether either the mother or the father or both parents considered abortion. We have seen that it does. We also have seen that outcomes vary by which parent reported the father's contributions. To examine these findings in greater depth, we conducted additional hypothesis tests about whether it matters which parent reports having considered abortion. First, we tested whether the father's pregnancy intentions are irrelevant (if they are, there may be little harm in relying on maternal reports of pregnancy intention). This is a joint test of two conditions: that the coefficient for only the mother's having considered abortion is equal to that for both parents' having done so, and that the coefficient for only the father's having considered abortion is equal to zero (signifying that the mean outcome associated with only the father's having considered abortion was the same as that associated with neither parent's having considered abortion, conditional on the other controls). The chi-square results (Table 4) suggest that the father's intentions are not irrelevant for either his own or the mother's reports of his cash contributions (p=.01 and p=.002, respectively). They also suggest that his intentions are not irrelevant for his own reports of in-kind support (p=.0000). However, the results are not significant for other outcomes, indicating that we cannot reject the null hypothesis that the father's intentions are irrelevant for early prenatal care or for the mother's reports of the father's in-kind contributions.

We also examined whether there is any evidence against the hypothesis that outcomes are no different whether both parents report they considered abortion or only one parent reports having done so. Therefore, we tested whether the coefficients for each parent's and both parents' having considered abortion are the same. We can reject this null hypothesis for early prenatal care initiation and for fathers' reports of cash or in-kind contributions. That is, the effects of at least one parent's having considered abortion are not the same as those of both parents' having done so. For mothers' reports of fathers' cash or in-kind contributions, we cannot reject the equality of the coefficients. That is, for these outcomes, the effects of one or the other parent's having considered abortion are statistically indistinguishable from the effect of both parents' having done so.

Given the mixed findings about which parent's intentions are important, it is also interesting to know whether it matters that at least one (as opposed to neither) parent considered abortion. Following Korenman, Kaestner and Joyce,[1] the last stage of the analysis considered whether having both parents or either parent consider abortion is

TABLE 4. Results of probit analyses assessing associations between unmarried parents' reports of having considered abortion and selected birth outcomes and parental behaviors during pregnancy

Outcome or behavior	Coefficient	SE	Percentage-point difference from reference group
Prenatal care initiated in first trimester			
Neither parent considered abortion	ref		na
Both parents considered abortion	−0.41**	0.15	−12.2
Father only considered abortion	−0.01	0.07	−0.4
Mother only considered abortion	−0.39**	0.08	−11.6
χ^2 *for father irrelevant†*	*0.04*		
χ^2 *for equality of effects‡*	*24.4****		
Mother reports father gave cash			
Neither parent considered abortion	ref		na
Both parents considered abortion	−0.32*	0.15	−5.6
Father only considered abortion	−0.40**	0.11	−7.1
Mother only considered abortion	−0.41**	0.08	−7.4
χ^2 *for father irrelevant†*	*13.0***		
χ^2 *for equality of effects‡*	*0.4*		
Father reports he gave cash			
Neither parent considered abortion	ref		na
Both parents considered abortion	−0.57**	0.18	−9.7
Father only considered abortion	−0.38*	0.17	−5.6
Mother only considered abortion	−0.10	0.11	−1.3
χ^2 *for father irrelevant†*	*9.3***		
χ^2 *for equality of effects‡*	*8.2**		
Mother reports father gave in-kind support			
Neither parent considered abortion	ref		na
Both parents considered abortion	−0.49**	0.12	−10.4
Father only considered abortion	−0.17	0.13	−3.0
Mother only considered abortion	−0.42**	0.14	−8.5
χ^2 *for father irrelevant†*	*3.7*		
χ^2 *for equality of effects‡*	*4.8*		
Father reports he gave in-kind support			
Neither parent considered abortion	ref		na
Both parents considered abortion	−0.75**	0.12	−14.0
Father only considered abortion	−0.61**	0.11	−10.4
Mother only considered abortion	−0.22*	0.09	−3.0
χ^2 *for father irrelevant†*	*53.0****		
χ^2 *for equality of effects‡*	*20.3****		
Low birth weight			
Neither parent considered abortion	ref		na
Both parents considered abortion	0.01	0.16	0.1
Father only considered abortion	−0.05	0.11	−0.7
Mother only considered abortion	−0.12	0.12	−1.9
χ^2 *for father irrelevant†*	*0.8*		
χ^2 *for equality of effects‡*	*1.0*		

*p<0.05. **p<.01. ***p<.001. †Test of joint hypothesis that the coefficient for only the mother's having considered abortion equals the coefficient for both parents' having considered abortion and that the coefficient for only the father's having considered abortion equals zero (i.e., the effect of the father's only having considered abortion is no different from that of the reference group). ‡Test that the three coefficients shown are equal. *Notes:* SE=standard error. ref=reference group. na=not applicable. Standard errors are adjusted for heteroskedasticity and for arbitrary covariance structure within city. Percentage-point changes from reference groups are 100 times the implied marginal effects. Marginal effects are the average of the difference in the predicted marginals for each observation with all controls left at their sample values with the relevant intention category set to 1 and then 0, for all observations for which abortion intentions were reported. Regressions include controls for all characteristics shown in Table 1, for whether either parent did not answer the question about having considered abortion, and for city and month of birth (for omitted categories, see footnote on page 197). Initiation of prenatal care and low birth weight were also tested for married parents; none of the results were significant.

TABLE 5. Results of regression analyses assessing associations between at least one parent's having considered abortion and selected birth outcomes and parental behaviors during pregnancy

Outcome	Unmarried parents			Married parents		
	Coefficient	SE	Percentage-point difference from reference group	Coefficient	SE	Percentage-point difference from reference group
Prenatal care initiated in first trimester	−0.30**	0.06	−8.6	−0.26	0.29	−4.1
Mother reports father gave cash	−0.39**	0.07	−6.9	na		
Father reports he gave cash	−0.31*	0.13	−4.5	na		
Mother reports father gave in-kind support	−0.37**	0.11	−7.4	na		
Father reports he gave in-kind support	−0.48**	0.07	−7.8	na		
Low birth weight	−0.06	0.09	−1.0	0.11	0.45	1.0
Birth weight	0.03	0.06	na	0.17	0.18	na

*p<.05. **p<.01. *Notes:* SE=standard error. na=not applicable. Regressions for parental behaviors and low birth weight are probits; regression for birth weight is ordinary least squares. Standard errors are adjusted for heteroskedasticity and for arbitrary covariance structure within city. Percentage-point changes from reference groups are 100 times the implied marginal effects. Marginal effects are the average of the difference in the predicted marginals for each observation with all controls left at their sample values with the relevant intention category set to 1 and then 0, for all observations for which abortion intentions were reported. The reference group is couples in which neither parent considered abortion. Regressions include controls for all characteristics shown in Table 1, for whether either parent did not answer the question about having considered abortion, and for city and month of birth (for omitted categories, see footnote on page 197).

associated with receipt of early prenatal care, paternal contributions, birth weight or low birth weight (Table 5). Consistent with the other results, our results show that having at least one parent consider abortion is negatively associated with early prenatal care and paternal contributions of cash or in-kind help for unmarried parents. Pregnancy intentions are not significantly related to birth weight or low birth weight for married or unmarried parents.

DISCUSSION

This study extends previous research by including direct information from men about their pregnancy intentions and their early support of mothers. Consistent with research by Korenman, Kaestner and Joyce,[1] we find that the pregnancy intentions of one or both parents are strongly associated with parents' behavior during the pregnancy but are not related to children's birth weight. We also find that results differ by each parent's intentions and by which parent reported paternal support. Therefore, these findings suggest that it will be important for future research to examine measures of pregnancy intention and men's behavior as reported by both parents.

When partners view a pregnancy differently, each parent's intentions appear to be most closely tied to his or her self-reported behavior during the pregnancy. Unmarried mothers' intentions may be better predictors of early prenatal care initiation because mothers have more direct control over the outcome of the pregnancy than fathers. Qualitative evidence from the Fragile Families Study indicates that fathers who were concerned about their ability to support another child were more likely to consider abortion than were those expressing no such concern,[21] suggesting one possible explanation of why men's own intentions may matter more for their contributions during the pregnancy. However, we find that paternal support was most consistently associated with both partners' having considered abortion when they learned of it. Previous research also shows that men and women are more likely to give different reports of paternal involvement when they have conflicts in their relationship.[22] Our findings suggest that parents' feelings about the pregnancy may be associated either with their perceptions of paternal support or with actual paternal support.

Our results also parallel those of other studies[1,4] in suggesting that pregnancy intentions may be more strongly related to parents' behaviors during pregnancy than to birth weight. Because parents in the Fragile Families Study were asked to describe whether they considered abortion at a particular point in time—namely, when they learned of the pregnancy—their responses may not reflect their later feelings about the pregnancy. Parents' immediate reactions to the pregnancy may have been more closely tied to behaviors that occurred around this time than to outcomes measured at the birth.

Study Limitations

Although a major advantage of the Fragile Families data set is the inclusion of reports from unmarried fathers as well as mothers, an important limitation is that standard questions about pregnancy intention were not asked of parents. Future research investigating the consequences of pregnancy intention should examine measures of pregnancy timing and wantedness that can more easily be compared with those used in previous research. As in other surveys, a measure asking parents how they felt when they learned of the pregnancy may be subject to some recall and social desirability bias. Furthermore, differences we found between men's and women's pregnancy intentions may simply reflect differences in the time at which they became aware of the pregnancy. Finally, the patterns we have seen here may not hold for pregnancies that do not result in a live birth. In addition to acknowledging these measurement issues, we note that the patterns we have uncovered are descriptive and may not indicate causal relationships. Given our cross-sectional data, these associations may also be caused by omitted factors we cannot control for.

Conclusion

Recent policy debate has focused on understanding and avoiding unintended pregnancies among young men and women. Research and policy efforts related to men's sexual and reproductive health have focused on how to encourage men's involvement in family planning, prenatal health care and parenting through a combination of education, counseling, and clinical and supportive services.[14,23–27] Knowing more about men's pregnancy intentions and how they are linked to early support of mothers may inform these discussions; surveys including

measures of both parents' pregnancy intentions and behaviors would be helpful.

REFERENCES

1. Korenman S, Kaestner R and Joyce T, Consequences for infants of parental disagreement in pregnancy intention, *Perspectives on Sexual and Reproductive Health*, 2002, 34(4):198–205.

2. Finer LB and Henshaw SK, Disparities in rates of unintended pregnancy in the United States, 1994 and 2001, *Perspectives on Sexual and Reproductive Health*, 2006, 38(2):90–96.

3. Axinn WG, Barber JS and Thornton A, The long-term impact of childbearing decisions on children's self-esteem, *Demography*, 1998, 35(4):435–444.

4. Brown S and Eisenberg L, eds., *The Best Intentions: Unintended Pregnancy and the Well-Being of Children and Families*, Washington, DC: National Academy Press, 1995.

5. Joyce T, Kaestner R and Korenman S, The effect of pregnancy intention on child development, *Demography*, 2000, 37(1): 83–94.

6. Kost K, Landry DJ and Darroch JE, Predicting maternal behaviors during pregnancy: does intention status matter? *Family Planning Perspectives*, 1998, 30(2):79–88.

7. Marsiglio W and Mott FL, Does wanting to become pregnant with a child affect subsequent maternal behaviors and infant birth weight? *Journal of Marriage and Family*, 1988, 50(4): 1023–1036.

8. Sable MR and Wilkinson DS, Impact of perceived stress, major life events and pregnancy attitudes on low birth weight, *Family Planning Perspectives*, 2000, 32(6):288–294.

9. Thomson E, McDonald E and Bumpass LL, Fertility desires and fertility: hers, his, and theirs, *Demography*, 1990, 27(4):579–588.

10. Williams LB, Determinants of couple agreement in U.S. fertility decisions, *Family Planning Perspectives*, 1994, 26(4):169–173.

11. Becker S, Couples and reproductive health: a review of couple studies, *Studies in Family Planning*, 1996, 27(6):291–306.

12. Thomson E, Couple childbearing desires, intentions, and births, *Demography*, 1997, 34(3):343–354.

13. Goldscheider FK and Kaufman G, Fertility and commitment: bringing men back in, *Population and Development Review*, 1996, 22(Suppl.):87–99.

14. Marsiglio W, *Procreative Man*, New York: New York University Press, 1998.

15. Marsiglio W and Shehan C, Adolescent males' abortion attitudes: data from a national survey, *Family Planning Perspectives*, 1993, 25(4):162–169.

16. Bronte-Tinkew J et al., Resident fathers' pregnancy intentions, prenatal behaviors, and links to involvement with infants, *Journal of Marriage and Family*, 2007, 69(4):977–990.

17. Argys LM et al., The impact of child support on cognitive outcomes of young children, *Demography*, 1998, 35(2):159–173.

18. Knox V, The effects of child support payments on developmental outcomes for children in single-mother families, *Journal of Human Resources*, 1996, 31(4):816–840.

19. Reichman N et al., Racial and ethnic disparities in low birthweight among urban unmarried mothers, *Maternal and Child Health Journal*, 2008, 12(2):204–215.

20. Reichman NE et al., Fragile Families: sample and design, *Children and Youth Services Review*, 2001, 23(4/5):303–326.

21. Waller MR and Bitler M, Partners' views of fragile families, paper presented at Mixed Methods Research on Economic Conditions, Public Policy, and Family and Child Well-Being, Ann Arbor, MI, June 27–28, 2005.

22. Coley RL and Morris JE, Comparing father and mother reports of father involvement among low-income minority families, *Journal of Marriage and Family*, 2002, 64(4):982–997.

23. Sonenstein FL, ed., *Young Men's Sexual and Reproductive Health: Toward a National Strategy*, Washington, DC: The Urban Institute, 2000.

24. Finer LB, Darroch JE and Frost JJ, Services for men at publicly funded family planning agencies, 1998–1999, *Perspectives on Sexual and Reproductive Health*, 2003, 35(5):202–207.

25. Raine T et al., The other half of the equation: serving young men in a young women's reproductive health clinic, *Perspectives on Sexual and Reproductive Health*, 2003, 35(5):208–214.

26. Sherrow G et al., Man2Man: a promising approach to addressing the sexual and reproductive health needs of young men, *Perspectives on Sexual and Reproductive Health*, 2003, 35(5):215–219.

27. Armstrong B, The Young Men's Clinic: addressing reproductive and health responsibilities, *Perspectives on Sexual and Reproductive Health*, 2003, 35(5):220–225.

Acknowledgments

The authors are grateful to the National Institute of Child Health and Human Development (NICHD) Transition to Fatherhood Network and the Bronfenbrenner Life Course Center for support of this work. They also thank Anna Aizer, Jean Knab, David Neumark, Andrew Noymer and Madeline Zavodny. The Fragile Families and Child Wellbeing Study is funded by the NICHD and a consortium of other agencies and foundations. The authors alternate first authorship on their collaborative work; both contributed equally to this article.

Author contact: *mrw37@cornell.edu*