

PRAMISGRAM

OKLAHOMA PREGNANCY RISK ASSESSMENT MONITORING SYSTEM VOL 11 NO 1 WINTER 2007

Father's Intention of Pregnancy

Introduction

The subject of maternal pregnancy intention has been widely researched. Its impact on both the fetus and the infant has been explored in multiple studies, with well-established evidence that unintended pregnancy results in adverse health outcomes and undesired behaviors for the mother and infant. The effect of the father's pregnancy intention and how his feelings about the pregnancy may influence maternal behaviors and birth outcomes is less known.

A limited number of published studies have described relationships between paternal pregnancy intention and pregnancy-related behaviors and outcomes. Korenman et al. (2002) found that women with unintended pregnancies, defined as unintended by maternal and paternal intention, were less likely to breastfeed and more likely to delay prenatal care.¹ Sangi-Haghpeykar et al. (2005) reported similar protective effects of paternal intention for timely prenatal care among Hispanic women.² Fischer, Stanford et al. (1999) found that paternal attitude towards pregnancy did affect how the mother defined her pregnancy in terms of intendedness.³ Generally speaking, however, the role of father's intention and its relationship to the health of the pregnancy and infant has not been widely documented and has traditionally examined intention as a binary outcome, intended versus unintended.^{1,2,3} However, more articles are expected as a result of the 2002 National Survey of Family Growth, which included the issue of pregnancy intention and paternal involvement from the perspective of both the mother and the father.

This PRAMISGRAM will discuss father's intention as perceived by the mother and its association with her intention and behaviors, as well as birth outcomes.

In Oklahoma

- Forty percent of live births were the result of pregnancies intended by the father.
- Approximately 1/3 of Oklahoma live births were to women who indicated that the father did not intend the pregnancy.
- Women with partners who did not intend the pregnancy were more likely to be younger than 20 years of age or unmarried.
- Women whose partners intended the pregnancy were more likely to intend their pregnancy themselves.
- Men who did not intend their partners' pregnancy were less likely to help them with caring for the baby and paying for baby supplies.

Methods

The PRAMS Phase IV questionnaire included the question, "Thinking back to just before you got pregnant with your new baby, how did the baby's father feel about you becoming pregnant?", which was used to determine paternal intention of pregnancy. Mothers could select one of the following response options: he wanted me to be pregnant sooner; he wanted me to be pregnant later; he wanted me to be pregnant then; he didn't want me to be pregnant then or at any time in the future; or, it didn't matter to him when I became pregnant. For study purposes, responses indicating "sooner" or "then" were classified as intended, "later" or "not then or at any time in the future" were classified as unintended, and "didn't matter" was classified as ambivalent.

PRAMS data for years 2000 through 2003 (Phase IV) were examined in the analysis. Rates of pregnancy intention are shown for maternal and paternal demographic characteristics. Paternal pregnancy intention

groups are compared with respect to selected pregnancy-related behaviors or experiences. Population estimates and 95% confidence intervals were produced using SUDAAN statistical software. Results were considered to be statistically significant at $p < 0.05$.

Results

Approximately four in ten live births in Oklahoma were intended by the father prior to the conception of the pregnancy. One-third of births were unintended and nearly 28% of fathers were ambivalent about the pregnancy according to Oklahoma mothers (Figure 1).

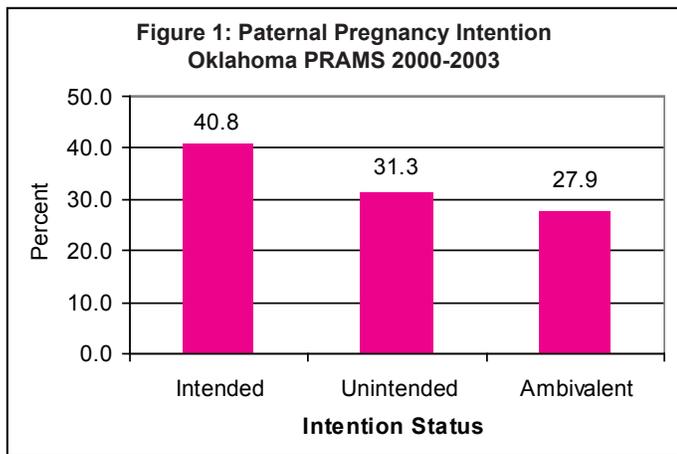


Table 1 illustrates the key differences in the prevalence of paternal pregnancy intention by maternal characteristics. Mothers reporting that the father intended the pregnancy before conception were more likely to be older than 25 years of age, have some post-secondary education, married or Hispanic. Only two maternal de-

mographic groups achieved an intended pregnancy rate at or above 50 percent. These groups were women aged 30-34 (50.9%) and married women (50.6%). Married women were twice as likely as unmarried women to report the pregnancy as intended by the father. Women with partners who did not intend the pregnancy were more likely to be less than 20 years of age, have 12 years or less of education, or were unmarried. African American or American Indian mothers were more likely to report that their partners were ambivalent about the pregnancy.

Characteristic	Intended		Unintended		Ambivalent	
	%	95%CI	%	95%CI	%	95%CI
Age						
<20	24.4	20.1, 29.2	49.9	44.6, 55.2	25.7	21.4, 30.5
20-24	35.3	32.2, 38.6	38.3	35.1, 41.6	26.4	23.5, 29.4
25-29	46.2	42.7, 49.8	24.0	21.1, 27.3	29.7	26.5, 33.1
30-34	50.9	46.6, 55.3	19.3	16.0, 23.0	29.8	25.9, 33.9
35 or older	49.5	43.1, 56.0	23.4	18.3, 29.4	27.0	21.8, 33.1
Race						
White	42.4	40.3, 44.4	31.6	29.6, 33.6	26.0	24.2, 27.9
African Am.	28.8	23.3, 35.1	32.7	26.9, 39.1	38.5	32.3, 45.0
Am. Indian	36.6	30.8, 42.8	29.3	24.0, 35.3	34.1	28.4, 40.3
Education*						
<HS	38.9	33.9, 44.2	33.2	28.4, 38.4	27.9	23.4, 32.9
HS	37.1	33.8, 40.5	31.9	28.8, 35.3	31.0	27.9, 34.2
>HS	49.5	46.7, 52.4	24.2	21.8, 26.8	26.3	23.8, 28.8
Marital Status						
Married	50.6	48.2, 52.9	21.7	19.8, 23.7	27.7	25.7, 29.8
Other	25.0	22.4, 27.9	46.9	43.7, 50.1	28.1	25.3, 31.0
Ethnicity						
Hispanic	48.1	42.0, 54.3	29.6	24.1, 35.7	22.3	17.6, 27.9
Non-Hispanic	39.8	37.9, 41.8	31.7	29.9, 33.6	28.5	26.7, 30.3

*Excludes those who are <20 years old

In general, the pattern of variability in paternal pregnancy intention by paternal demographics is similar to that observed by maternal demographics (Table 2). Fathers 25 years of age or older were significantly more likely than teen or young adult fathers to intend the pregnancy. White men (44.4%) were significantly more likely than African American men (29.4%) to have an intended pregnancy, but were not significantly different from American Indian men (39.4%). Men with some post-secondary education were the sole demographic group to achieve an intended pregnancy rate of fifty percent or higher (52.2%). This group had a higher rate of intended pregnancy than men with a high school education or less (<HS, 40.5%; HS, 38.4%). Unintended pregnancy was most likely to occur to teen or young adult men, 55.6% and 42.0%, respectively, and least likely to occur to men with some education beyond high school (23.0%). Ambivalent pregnancy was highest among African American men (41.0%), with little variation shown in other demographic groupings.

The Pregnancy Risk Assessment Monitoring System (PRAMS) is an ongoing, population-based study designed to collect information about maternal behaviors and experiences before, during and after pregnancy. On a monthly basis, PRAMS samples between 200 and 250 recent mothers from the Oklahoma live birth registry. Mothers are sent as many as three mail questionnaires seeking their participation, with follow-up phone interviews for non-respondents. A systematic stratified sampling design is used to yield sample sizes sufficient to generate population estimates for groups considered at risk for adverse pregnancy outcomes. Information included in the birth registry is used to develop analysis weights that adjust for probability of selection and non-response. Initially, 9,736 mothers in 2000-2003 were sampled and sent the survey. Of these, 7,680 responded yielding a response rate of 78.9%.

To examine the pregnancy and infant care-taking behaviors according to paternal intention status, several key behaviors were identified and analyzed for significant differences among intention groups. Strong agreement existed between maternal and paternal pregnancy intention (Table 3). Of those women who indicated that the father intended the pregnancy, 82% reported the pregnancy as intended. Similarly, 84.5% of those women reporting that the father considered the pregnancy unintended also regarded the pregnancy as unintended. Those indicating paternal ambivalence fell almost equally into the intended (52.9%) and unintended (47.1%) groups.

Table 2: Paternal Pregnancy Intention by Paternal Characteristics, Oklahoma PRAMS 2000-2003

Characteristic	Intended		Unintended		Ambivalent	
	%	95%CI	%	95%CI	%	95%CI
Age						
<20	19.0	13.4, 26.2	55.6	47.5, 63.5	25.4	19.0, 32.9
20-24	31.4	28.1, 34.9	42.0	38.4, 45.7	26.6	23.5, 30.0
25-29	46.3	42.8, 49.9	26.5	23.5, 29.8	27.2	24.1, 30.4
30-34	48.2	44.2, 52.1	23.4	20.2, 27.1	28.4	24.9, 32.1
35 or older	45.2	40.6, 49.8	24.3	20.5, 28.5	30.5	26.5, 34.9
Race						
White	44.4	41.9, 47.0	27.7	25.4, 30.2	27.8	25.6, 30.2
African Am.	29.4	22.5, 37.4	29.5	22.7, 37.5	41.0	33.1, 49.4
Am. Indian	39.4	31.6, 47.8	26.3	19.7, 34.3	34.2	26.7, 42.6
Education*						
<HS	40.5	34.9, 46.3	28.0	23.1, 33.6	31.5	26.4, 37.1
HS	38.4	35.2, 41.7	31.3	28.2, 34.6	30.2	27.2, 33.4
>HS	52.2	49.2, 55.2	23.0	20.5, 25.6	24.8	22.3, 27.5
Ethnicity						
Hispanic	47.8	41.5, 54.2	28.6	23.1, 34.8	23.6	18.7, 29.3
Non-Hispanic	43.2	41.1, 45.3	28.0	26.1, 30.0	28.8	26.9, 30.8

*Excludes those who are <20 years old

Maternal behaviors before and during pregnancy were influenced by the father’s feelings. Women with partners who intended the pregnancy were more likely to have not smoked cigarettes during the three months prior to pregnancy than were women with partners who did not intend or were ambivalent about the pregnancy (22.5% vs. 40.3% and 30.1%, respectively). Those mothers most likely to receive first trimester prenatal care were those in the paternal intended group. Among mothers in this group, 83% initiated prenatal care during the first three months of pregnancy. This compares to 78% for the ambivalent group and 66% for those classified as unintended.

For women with partners who regarded the pregnancy as unintended, 31% reported that their partner had stated during the 12 months before the infant was born that he did not want her to be pregnant. This rate is markedly higher than either of the other intention groups.

Paternal pregnancy intention may continue to influence the life of the mother and child postpartum. Those women who indicated that the father intended the pregnancy were more likely to breastfeed than women with unintended or ambivalent partners. Three in four mothers in the intended group reported initiating breastfeeding while roughly two in three of those mothers in the unintended or ambivalent groups reported doing so. Fathers with intended pregnancies were more likely to assist with care taking behaviors (like changing, bathing or feeding the infant) and more likely to help pay for supplies than men in the unintended group (Table 3).

Table 3: Pregnancy and Postpartum Behaviors by Paternal Pregnancy Intention, Oklahoma PRAMS 2000-2003

Characteristic	Intended		Unintended		Ambivalent	
	%	95%CI	%	95%CI	%	95%CI
Maternal pregnancy intention						
Intended	81.9	79.4, 84.1	15.5	13.2, 18.2	52.9	49.3, 56.5
Unintended	18.1	15.9, 20.6	84.5	81.8, 86.8	47.1	43.5, 50.7
First trimester prenatal care	83.3	81.0, 85.5	65.8	62.3, 69.0	78.1	75.0, 80.9
Smoked before pregnancy	22.5	20.1, 25.2	40.3	36.9, 43.9	30.1	26.8, 33.5
Partner Verbalized He Did Not Want Pregnancy	1.8	1.1, 2.9	31.0	27.8, 34.4	3.8	2.6, 5.5
Ever Breastfed	75.4	72.7, 77.9	65.5	62.1, 68.8	66.3	62.7, 69.6
Father pays for baby supplies						
Always or some of the time	94.8	93.3, 96.0	83.8	81.0, 86.3	91.7	89.2, 93.6
Rarely or never	5.2	3.9, 6.7	16.2	13.7, 19.0	8.3	6.4, 10.7
Father helps with baby care						
Usually or some of the time	94.4	92.8, 95.7	82.9	80.0, 85.4	91.7	89.3, 93.6
Rarely or never	5.6	4.3, 7.2	17.1	14.6, 20.0	8.3	6.4, 10.7

Discussion

Paternal pregnancy intention is strongly associated with both the mother’s feelings about her own pregnancy and her behaviors before, during and after pregnancy. Those fathers who intended conception had partners who were more likely to seek prenatal care during the first trimester, breastfeed, and state that they received regular financial and physical assistance from the father after the birth of the child.

Father involvement is important during all stages of a child’s life. Weight gain for preterm infants, breastfeeding, and academic achievement, among other important physical and developmental issues, have been positively associated with paternal involvement⁴.

Additionally, a father's involvement and contributions to the health and well being of his child can begin before the postpartum period. Family planning, preconception and prenatal care visits are all opportunities to discuss male involvement and the impact a father's attitudes and feelings about pregnancy and childrearing can have on the mother and child.

Several limitations for this study exist. The analysis examined variables independently and did not control for covariates. Adjusting for covariates may moderate these relationships. A second limitation is that PRAMS surveys only mothers with a recent live birth. Therefore, unintended pregnancies that result in miscarriages or abortions cannot be assessed. In addition, the questions about pregnancy intention are subject to a variety of factors, which cannot be fully explored with a retrospective survey. Finally, paternal intention is based upon the mother's perception of his intention, not from information gathered from the father.

Recommendations

- Encourage all men and women to map out a life plan for their reproductive health needs.
- Encourage men to attend preconception health, prenatal care and well baby care visits.
- Ask fathers to submit questions if they are unable to attend health visits for the mother or child⁴.
- Encourage women who attend family planning, prenatal and well baby visits without their partners to consider arranging the next appointment so that their partner can attend⁴.
- Develop culturally sensitive family planning strategies to include men and women who may be ambivalent about becoming pregnant.
- Conduct additional research into pregnancy intention, particularly concerning men and women who indicate ambivalence toward conception, in order to develop effective interventions to improve health behaviors among this group.

References

1. Korenman S, Kaestner R, Joyce T. Consequences for infants of parental disagreement in pregnancy intention. *Perspect Sex Reprod Health*. 2002 Jul/Aug; 34(4): 198-205.
2. Sangi-Haghpeykar H, Mehta M, Posner S, Poindexter AN. Paternal influences on the timing of prenatal care among Hispanics. *Matern Child Health J*. 2005; 9(2): 159-163.
3. Stanford J, Hobbs R, Jameson P, Dewitt MJ, Fischer R. Defining dimensions of pregnancy intendedness. *Matern Child Health J*. 2000; 4(3): 183-189.
4. Garfield C, Isacco, A. Fathers and the well child visit. *Pediatrics*. 2006; 117:637-45.

Acknowledgements

James M. Crutcher, MD, MPH
Commissioner of Health and
State Health Officer

Edd D. Rhoades, MD, MPH
Deputy Commissioner, Family Health Services

Suzanna D. Dooley, MS, ARNP
Chief, Maternal and Child Health Service

Special assistance for this edition was provided by Alicia Lincoln, MSW, MSPH; Dick Lorenz, MSPH; Paul Patrick, MPH; Wanda Thomas; and Jaimie Watt, MPH.

Funding for the PRAMS Project is provided in part by the Centers for Disease Control and Prevention, Atlanta, GA (Grant No. U50/CCU613668-09), and the Title V Maternal and Child Health Block Grant, Maternal and Child Health Bureau, Department of Health and Human Services. The views expressed here are the responsibility of the authors and may not reflect the official views of the CDC or MCHB.

The PRAMSGRAM is issued by the Oklahoma State Department of Health, as authorized by James M. Crutcher, Commissioner of Health and State Health Officer. Galt printed 4,000 copies in March 2007 at a cost of \$775. Copies have been deposited with the Publications Clearinghouse of the Oklahoma Department of Libraries.

This and other PRAMS publications can be found on the web at <http://www.health.ok.gov>, keyword PRAMS.



Oklahoma State
Department of Health
An AA/EEO Employer