



Mothers of preterm birth infants: Pregnancy intentions and contraception use at six months

Joan R. Bloch,¹ PhD, CRNP, David A. Webb,² PhD, Leny Mathew,² MS & Jennifer F. Culhane,³ PhD

¹College of Nursing and Health Professions & School of Public Health, Drexel University, Philadelphia PA; ²Division of Adolescent Medicine, Children's Hospital of Philadelphia, Philadelphia PA; and

³Department of Pediatrics, School of Medicine, University of Pennsylvania, Philadelphia PA



Introduction

The purpose of this study is to describe pregnancy intentions and contraception use at 6 months postpartum among mothers who had a preterm infant.

Previous preterm delivery is the most salient predictor of a repeat preterm birth¹. Unintended pregnancies with short inter-pregnancy intervals are known risk factors for preterm birth (PTB).² Postpartum pregnancy intentions, sexual practices and contraception use among women with a previous PTB remain largely unexplored. Contraception effectiveness is critical in minimizing the risk for unintended pregnancy,³ particularly among women for whom an unintended pregnancy poses risks for a subsequent PTB.

Study Population

Parent Study: Philadelphia Collaborative Preterm Prevention Project (PCPPP)
* Assessing the efficacy of an inter-conceptual intervention for 18 months.



Philadelphia resident women (n=1,126) who gave birth to a PTB infant in any of 12 Philadelphia hospitals⁴

This analysis involves the Mothers at six months postpartum who reported that they were sexually active (n=500)

Methods

Key Study Variables

•Pregnancy Intentions

•Contraception Use and Effectiveness

•Lowest effectiveness: foam/jelly/cream, male condom, male condom with foam, female condom, female condom with foam, withdrawal, rhythm, diaphragm, & other

•Moderately High Effectiveness: pills, patch & Depo Provera

•Highest Effectiveness: IUD, sterilization, Norplant

Analysis

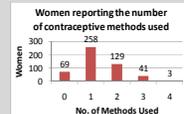
Cross tabulations, Chi-square and Logistic Regression using Stata 10.1

Results

Of the mothers interviewed at 6 months, 85% (n=500) were sexually active. 2.2% wanted to get pregnant right now 37.8% never wanted to get pregnant ever again

Description of contraception use reported at 6 months postpartum (n=500)

| Birth Control Method | Number of Mothers using this method n (%) | Consistent use of method every time they have sex n (%) |
|----------------------------|---|---|
| Birth Control Pills | 112 (22.4) | 84 (75.2) |
| IUD | 9 (1.8) | 7 (88.9) |
| Foam, jelly, cream (alone) | 6 (1.2) | 5 (83.3) |
| Male Condom (alone) | 230 (46) | 163 (70.8) |
| Male condom with foam | 6 (1.2) | 4 (66.7) |
| Female condom (alone) | 6 (1.2) | 4 (66.7) |
| Female condom with foam | 1 (0.2) | 1 (100) |
| Depo Provera (injection) | 147 (29.4) | 111 (75.5) |
| Withdrawal | 82 (16.4) | 53 (65) |
| Diaphragm | 0 | 0 |
| Norplant | 2 (0.4) | 1 (50) |
| Rhythm method | 2 (0.4) | 2 (100) |
| Sterilized (tubes tied) | 2 (0.4) | 2 (100) |
| Patch | 29 (5.8) | 23 (79.3) |
| Any other method | 17 (3.4) | 11 (62.5) |
| No birth control method | 69 (13.8) | |



Maternal and Infant Characteristics related to Pregnancy Intentions

| Variables | Total n=500 (%) | Intending Pregnancy n=51 (%) | Not intending pregnancy during 1 st year after index birth n=449 (%) | P value |
|---|------------------------|------------------------------|---|---------|
| Demographic | | | | |
| Race-Black | 360(72) | 31(60.8) | 329(73.3) | |
| Race-White | 57(11.4) | 11(21.6) | 46(10.2) | |
| Race-Hispanic | 73(14.6) | 8(15.7) | 65(14.5) | |
| Race-other | 10(2) | 1(1.9) | 9(2) | 0.10 |
| Age-mean (sd) | 25.1(6.3) | 27.2(7.2) | 27.2(7.2) | 0.04 |
| Married | 102(20.5) | 19(38) | 83(18.5) | 0.001 |
| Education | less than HS 156(31.2) | 13(25.5) | 143(31.9) | |
| HS/GED | 187(37.4) | 16(31.4) | 171(38.1) | |
| post HS | 157(31.4) | 22(43.1) | 135(30.1) | 0.16 |
| Nativity-US born | 460(92) | 47(92.2) | 413(91.9) | 0.96 |
| Maternal & Infant Health | | | | |
| Self-Rated health since last seen | | | | |
| Excellent/ Very good/good | 365(73) | 41(80) | 324(72.2) | |
| Fair/ poor | 134(27) | 10(20) | 124(28.8) | 0.21 |
| Pregnancy birsk due heart/HBP/Diab/>35yrs | 80(16) | 7(13.7) | 73(16.3) | 0.64 |
| CES-D ≥23 | 126 (25.3) | 15(29.4) | 111(24.8) | 0.47 |
| Infant's Health Outcome/Disposition after Birth | | | | |
| Regular nursery | 14(2.9) | 1(2.0) | 13(3.0) | |
| Trans nursery | 5(1.0) | 0(0) | 5(1.2) | |
| ICU | 408(84.8) | 26(53.1) | 382(88.4) | |
| Transferred | 6(1.3) | 0(0) | 6(1.4) | |
| Baby deceased | 48(9.8) | 22(44.9) | 26(6.0) | 0.000 |
| Baby died by 6 months | 62 (12.4) | 28(54.9) | 34(7.7) | 0.000 |
| Contraceptive Use at 6 months | | | | |
| Used some method | 431 (86.2) | 35(68.6) | 396(88.2) | |
| Did not use any method | 69 (13.8) | 16(31.4) | 53(11.8) | 0.000 |
| Number of contraceptive methods used within 6 months | | | | |
| 0 | 69(13.8) | 16(31.4) | 53(11.8) | |
| 1 | 258(54.9) | 28(54.9) | 230(51.2) | |
| 2 | 129(25.8) | 5(9.8) | 124(27.8) | |
| 3 | 41(8.2) | 2(3.9) | 39(8.7) | |
| 4 | 3(0.6) | 0(0) | 3(0.7) | 0.000 |

Contraception Use and Pregnancy Intentions

| Contraceptive Effectiveness | NOT Intending pregnancy during this year n=449 (%) | Pregnancy Intended Now - or within 1 yr. n=51 (%) |
|-----------------------------|--|---|
| None | 53 (11.8) | 16 (31.4) |
| Lowest | 133 (29.6) | 16 (31.4) |
| Moderately High | 250 (55.7) | 19 (37.2) |
| Highest | 13 (2.9) | 0 |

Adjusted Odds Ratios of Using No Contraception or the Least Effective Methods

| Variable | Adjusted Odds Ratios | P-value |
|----------------------------|----------------------|---------|
| Pregnancy Intention | | |
| Not this year | 1.0 | |
| Now - or within the year | 2.17 | 0.02 |
| Age | | |
| < 19 | 1.0 | |
| 20-24 | 1.7 | 0.06 |
| 25+ | 2.16 | 0.01 |
| Education | | |
| < High School | 1.0 | |
| High School | 0.70 | 0.13 |
| > High School | 0.71 | 0.28 |
| Race/Ethnicity | | |
| Black | 1.0 | |
| White | 1.34 | 0.37 |
| Hispanic/Other | 1.19 | 0.52 |
| Parity | | |
| None | 1.0 | |
| One | 1.04 | 0.88 |
| Two or more | 0.93 | 0.78 |
| Marital Status | | |
| Married | 1.0 | |
| Single | 1.16 | 0.87 |
| Nativity | | |
| Foreign Born | 1.0 | |
| U.S. Born | 1.2 | 0.62 |
| Pregnancy Risk | | |
| High | 1.0 | 0.09 |
| Normal | 0.65 | |
| Depression | | |
| CES-D < 23 | 1.0 | |
| CES-D ≥ 23 | 0.79 | 0.31 |

Discussion

>Very few mothers (n=51) of PTB babies wanted to get pregnant during the postpartum year.

•Factors associated with wanting to get pregnant soon again was associated with the death of their PTB infant, a slightly younger maternal age and being married (p< 0.01).

>While most mothers (n=449) *did not want* to get pregnant during the postpartum year, they were not using the most effective contraceptive methods.

•Long-acting, highly effective methods of contraception may be the best choice.⁵ However, these methods are not always accessible.⁵

>Unintended Pregnancies

•Having an unintended pregnancy in the year following the birth of a PTB infant is a 'modifiable risk factor' for another PTB.

•Almost 1/2 of all pregnancies that occur in the United States are estimated to be unintended.^{6,7} Of the unintended pregnancies, 48% are the result of contraceptive failure, including the failure to use any contraception method during the month of conception.⁷

Highly Effective Inter-conceptual contraception is important for Mothers of PTB Infants

Limitations of Study

The mother's decision making for the method of contraception used was not assessed.

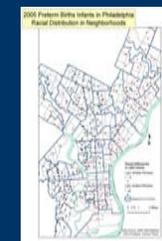
Therefore, it is not known if reported contraceptive use were based on individual decisions, congruent with pregnancy intentions and contraceptive knowledge.

Financial and structural barriers to health care were not assessed.

Unknown are the intrinsic and extrinsic barriers to using the most effective contraception in this particularly high obstetrical risk of women.

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** Public Health Reminder **
Healthy Mothers are more likely to have Healthy Babies