

Postpartum Contraception: A Review of the New Mexico Pregnancy Risk Assessment Monitoring System (PRAMS)

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Abstract

We examined factors associated with postpartum contraception using data from the New Mexico Pregnancy Risk Assessment Monitoring System, which monitors selected maternal events occurring before, during, and after pregnancy. Our findings in 4096 women revealed that women who are aged ≥ 35 years, unmarried, have < high school education, breastfed >2 months, and those lacking prenatal contraceptive counseling or a postpartum visit have increased risk of no postpartum contraception. The odds of postpartum contraception were over 3 times greater in women with a postpartum visit (adjusted odds ratio [OR] = 3.06, 95% confidence interval [CI]: 2.17 to 4.31) and over 50% greater in married women (adjusted OR = 1.57, 95% CI: 1.16 to 2.11). Hispanic women were more likely than were Native Americans to use postpartum contraception (OR = 1.25, 95% CI: 0.95 to 1.64). Focused contraception counseling, especially in the postpartum setting, is important to help ensure the well being of women and children.

Objective

- Examine factors associated with postpartum contraceptive choices
- Examine relationship between ethnicity and use of postpartum contraception

Background

- Two-thirds of women who are within 1 year of their last birth have an unmet need for contraception [1]
- Rapid repeat pregnancy has been associated with adverse health and social consequences for both mother and newborn [2-5]
- Postpartum period is a convenient time to introduce women to family planning
- Issue pertinent to New Mexico's high poverty levels and unique population: highest proportion of Hispanics and second highest proportion of Native Americans in the United States [6]

Materials and Methods

- New Mexico Pregnancy Risk Assessment Monitoring System (NM PRAMS), an ongoing, population-based surveillance system created by the Centers for Disease Control (CDC) and the New Mexico Department of Health
- Monitors selected maternal behaviors and experiences before, during, and after pregnancy among mothers delivering a live birth in New Mexico
- Stratified sample of New Mexico-resident women, identified by birth certificate data, who gave live birth 60-183 days prior to survey
- Self-administered questionnaires with telephone follow-up
- Weights calculated for each observation to represent the true population of New Mexico women
- Institutional IRB approval
- Bivariate relationships between postpartum contraceptive use and race examined using chi-squared statistics
- Controlled for confounders previously associated with contraceptive use: age, parity, marital status, and education [7-9]
- STATA 8.0 (STATA Corp., College Station, Texas)
- 5972 surveys from January 1998-December 1999
- 68.6% unweighted response rate

Results

Table 1: Comparison of characteristics of postpartum contraceptive users vs. nonusers

Characteristics	Percentage of all PRAMS respondents (N = 4096)	Postpartum Contraception Use	
		Yes <i>Weighted Percentage</i> (n = 3205)	No <i>Weighted Percentage</i> (n = 891)
Race/ethnicity			
Hispanic	40	52	48
Native American	28	12	17
Non-Hispanic white	32	35	35
Age (in years)			
15—19	16	17	20
20—24	29	31	26
25—34	44	43	39
35+	12	9	15
One or more previous live births	60	60	58
History of abortion	23	21	23
Married	55	59	48
Maternal education			
\geq High school	38	74	65
Intendedness of index pregnancy			
Wanted earlier/then (same)	56	56	52
Wanted later/never	44	44	48
Prenatal care	98	80	20
Prenatal contraceptive counseling	86	87	79
Postpartum visit	90	94	79
Breastfed for 2 months	49	46	52
Abuse during pregnancy	9	7	11
Help with childrearing	93	94	88

Bold indicates statistically significant difference between contraceptive users and nonusers (p < .05).

Table 2: Weighted logistic regression analysis of odds of postpartum contraceptive use by subgroup

Demographic characteristics	<i>Unadjusted</i>		<i>Adjusted^a</i>	
	OR	95% CI	OR	95% CI
Age, in years				
15—19	1.41	.94—2.11	1.95*	1.14—3.33
20—24	1.94**	1.36—2.78	2.44**	1.60—3.73
25—34	1.78**	1.27—2.51	2.01**	1.36—2.97
35+	1.00		1.00	
Married	1.56**	1.24—1.95	1.57**	1.16—2.11
\geq High school education	1.58**	1.22—2.03	1.40*	1.04—1.89
Race/ethnicity				
Native American	1.00		1.00	
Hispanic	1.49**	1.18—1.88	1.33*	1.01—1.75
Non-Hispanic white	1.39**	1.10—1.79	1.01	.74—1.38
Selected maternal characteristics				
Prenatal care	4.04**	2.04—8.00	2.30	.92—5.72
Prenatal contraceptive counseling	1.77**	1.31—2.41	1.51*	1.06—2.16
Postpartum visit	3.79**	2.81—5.11	3.06**	2.17—4.31
Breastfed >2 months	.79*	.63—.99	.72*	.55—.94
Abuse during pregnancy	.64*	.44—.91	.85	.54—1.34
Help with childrearing	1.85**	1.27—2.71	1.18	.74—1.87

^a Adjusted for race, age, parity, marital status, maternal education, prenatal care, prenatal contraceptive counseling, postpartum visit, breastfeeding, and help with childrearing.

* p < .05

**p < .01

Conclusion

- Contraceptive counseling especially important in the postpartum setting
- Prenatal contraceptive counseling and postpartum contraceptive follow-up, including methods that are safe while breastfeeding, may encourage more effective contraception, with less contraceptive discontinuation and failure
- Increased access to contraceptive counseling could be accomplished with home or community visits
- The large sample size and response rate in our study, and the large population of Hispanic and Native American women, allow us to better generalize our results
- Study limitations include response bias due to sensitive questions, the length of the questionnaire, and women's reading levels

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