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### Authors

Cha, Susan Chapman, Derek A Wan, Wen <u>et al.</u>

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Original research article

# Intimate partner violence and postpartum contraceptive use: the role of race/ethnicity and prenatal birth control counseling

Susan Cha<sup>a,\*</sup>, Derek A. Chapman<sup>a</sup>, Wen Wan<sup>b</sup>, Candace W. Burton<sup>c</sup>, Saba W. Masho<sup>a</sup>

<sup>a</sup>Department of Family Medicine and Population Health, Division of Epidemiology, Virginia Commonwealth University, School of Medicine, Richmond, VA 23298, USA <sup>b</sup>Department of Biostatistics, Virginia Commonwealth University, School of Medicine, Richmond, VA 23298, USA

<sup>c</sup>Department of Family and Community Health Nursing, Virginia Commonwealth University, School of Nursing, Richmond, VA 23298, USA

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#### Abstract

**Objectives:** Intimate partner violence (IPV) is a major problem that could affect reproductive decision making. The aim of this study is to examine the association between IPV and contraceptive use and assess whether the association varies by receipt of prenatal birth control counseling and race/ethnicity.

Study design: This study analyzed the 2004–2008 national Pregnancy Risk Assessment Monitoring System (PRAMS) that included 193,310 women with live births in the United States. IPV was determined by questions that asked about physical abuse by a current or former partner in the 12 months before or during pregnancy. The outcome was postpartum contraceptive use (yes vs. no). Multiple logistic regression analyses were conducted to assess the influence of experiencing IPV at different periods (preconception IPV, prenatal IPV, both preconception and prenatal IPV, preconception and/or prenatal IPV). Data were stratified to assess differential effects by race/ethnicity and receipt of birth control counseling.

**Results:** Approximately 6.2% of women reported IPV, and 15.5% reported no postpartum contraceptive use. Regardless of the timing of abuse, IPV-exposed women were significantly less likely to report contraceptive use after delivery. This was particularly true for Hispanic women who reported no prenatal birth control counseling and women of all other racial/ethnic groups who received prenatal birth control counseling.

**Conclusions:** IPV victimization adversely affects the use of contraceptive methods following delivery in women with live births. Birth control counseling by health providers may mitigate these effects; however, the quality of counseling needs further investigation. Better integration of violence prevention services and family planning programs is greatly needed.

**Implications:** Consistent with national recommendations by the U.S. Preventive Service Task Force, clinicians and public health workers are strongly encouraged to screen for IPV. Health providers should educate women on effective contraceptive options and discuss long-acting reversible contraceptives that are not partner dependent within the context of abusive relationships. © 2015 Elsevier Inc. All rights reserved.

Keywords: Intimate partner violence; Family planning; Contraception; Birth control; PRAMS

#### 1. Introduction

Intimate partner violence (IPV) is a major problem in the United States [1,2]. One in four women experience some form of IPV in the course of their lives, creating potentially dangerous situations for pregnant women and infants [3]. Based on a national study of primiparous women, it was conservatively estimated that IPV affects approximately 8%

\* Corresponding author. Tel.: +1 804 828 9785. *E-mail address:* chas@vcu.edu (S. Cha).

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and 5% of women before and during pregnancy, respectively, with rates of victimization increasing to 12% after delivery [4].

All forms of abuse may have serious consequences such as physical injuries, mental health problems, repeat abortions, sexually transmitted infections and death [2,5,6]. Poor birth spacing is also prevalent among IPV-exposed women [7] and could lead to poor perinatal outcomes including preterm births, small-for-gestational-age or low-birth-weight infants, and neonatal death [8–11]. Disparities in perinatal problems evident in high-risk populations may be partially attributed to IPV, which disproportionately impacts women who are young, poor, less educated and racial/ethnic minorities [5,12,13].

IPV has been well studied and emerges as a prominent risk factor for engaging in adverse behaviors [14,15]. Women who experience IPV are more likely to abuse substances and engage in risky sexual behaviors including multiple sex partners, early sexual debut and unprotected sex [15,16]. Victims are also more likely to report inconsistent or lack of contraceptive use [13,17,18]. Recent studies have also explored racial/ethnic disparities in contraceptive use, efficacy and choice of method [19,20]. Foreign-born Asian and black women are less likely to use highly effective contraceptive methods (i.e., intrauterine device and hormonal methods) compared to white women [20]. Data from the 2006-2010 National Survey of Family Growth also indicated that more Hispanic (15.0%) and non-Hispanic black (21.3%) women experienced contraceptive failures within the first 12 months of typical use than non-Hispanic white women (10.1%) [19]. While this may be partially attributed to method preferences, IPV and partner interference were not considered. This is critical since minority women are more likely to experience partner violence [1].

Prior studies highlight women's compromised ability to enforce decisions about contraceptive use and pregnancy particularly in abusive relationships [7,21–24]. Reproductive coercion, that is, coercive behaviors by male partners that promote or encourage the termination of pregnancy, has been previously reported [7,25]. In one nationally representative sample of adult women, 8% of respondents reported that their current partner interfered with their birth control use [26]. Women who indicated partner interference with birth control use were twice as likely to report high partner involvement in contraceptive services compared to women whose partners did not interfere. Nevertheless, variable IPV definitions (e.g., physical vs. sexual abuse), differences in assessment of IPV occurrence (e.g., before, during or after pregnancy; lifetime vs. past year), failure to account for important confounders, study design and sample size issues have contributed to inconsistent and biased results [13,17,18,27]. These limitations warrant further investigation of the association between IPV victimization and postpartum contraceptive use.

The framework for this study is based on the ecosocial model for IPV and Coker's model of IPV and sexual health [16,28]. Collectively, they illustrate the contextual factors and mechanisms through which IPV affects women's sexual health and behaviors. The study objective is to examine the extent to which IPV around the time of pregnancy is associated with postpartum contraceptive use among women in the United States. Furthermore, this paper evaluates differences by race/ ethnicity and receipt of prenatal birth control counseling.

#### 2. Methods

#### 2.1. Study population

This study analyzed data from the national 2004–2008 Pregnancy Risk Assessment Monitoring System (PRAMS). The Centers for Disease Control and Prevention established this population-based surveillance system to collect national data on maternal behaviors around the time of pregnancy. Detailed methodology for collecting PRAMS data is published elsewhere [29]. The sample for this analysis included women who delivered a live birth and received some form of prenatal care (N=193,310).

#### 2.2. Measurements

A survey item asking, "Are you or your husband or partner doing anything now to keep from getting pregnant? Some things people do to keep from getting pregnant include not having sex at certain times [rhythm] or withdrawal, and using birth control methods such as the pill, condoms, cervical ring, IUD, having their tubes tied, or their partner having a vasectomy" assessed postpartum contraceptive use. Responses were categorized as contraceptive use or nonuse.

IPV was determined by survey items that asked about physical abuse by a current or former partner/spouse in the 12 months before or during pregnancy. Responses were recoded into four dichotomous variables based on the timing of IPV: (a) preconception IPV (abuse in the 12 months prior to pregnancy only), (b) prenatal IPV (abuse during pregnancy only), (c) both preconception and prenatal IPV and (d) preconception and/or prenatal IPV [30]. Women who failed to answer all questions about timing of abuse by an intimate partner were not included in the mutually exclusive categories (i.e., "preconception IPV," "prenatal IPV," "preconception and prenatal IPV," (abuse during (n=3579).

Sociodemographic, psychosocial and behavioral factors were considered as potential covariates. Maternal sociodemographic variables included race/ethnicity, age, education, household income, marital status at delivery, insurance during pregnancy, adequacy of prenatal care utilization and participation in Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). Receipt of prenatal birth control counseling was based on a question that asked, "During any of your prenatal care visits, did a doctor, nurse, or other health care worker talk with you about ... birth control methods to use after my pregnancy?" Health behavioral factors (i.e., prenatal cigarette smoking, prepregnancy birth control use and pre-pregnancy multivitamin use), parity, pregnancy intention for the last pregnancy and stressful life events in the 12 months before delivery were also considered.

#### 2.3. Statistical analysis

Analyses were conducted in SAS 9.4 to account for the complex survey design. Descriptive statistics such as unweighted frequencies and weighted percentages were generated to assess the distribution of characteristics among participants by postpartum contraceptive use. Separate logistic regression models provided odds ratios (ORs) and 95% confidence intervals (CIs) to determine factors

associated with postpartum contraceptive use (yes vs. no). An iterative process of modeling was employed where potential confounders were maintained in logistic regression models if their presence resulted in a  $\geq 10\%$  change in the estimate for the association between IPV (not IPV exposed as referent group) and postpartum contraceptive use [31]. All adjusted OR estimates were stratified by race/ethnicity (non-Hispanic white, non-Hispanic black, Hispanic, non-Hispanic other) and prenatal birth control counseling (received, did not receive) to assess for effect modification.

#### 3. Results

The weighted prevalence of preconception and/or prenatal IPV was 6.2%. Mutually exclusive abuse categories of preconception IPV only and prenatal IPV only comprised of 2.9% and 1.1% of the study population, respectively. Approximately 2.5% of women reported both preconception and prenatal IPV. Nearly 15.5% of women reported no contraceptive use after their most recent pregnancy (results not shown in tables).

The majority of the study population were between the ages of 20 and 29 years, were married, were non-Hispanic white, and had 16 years or more of education (Table 1). The unadjusted analysis showed that women had significantly lower odds of using contraceptive methods after delivery if they were 35 years old or greater, with less than 12 years of education, of low income, non-Hispanic black or other race(s), uninsured, with less than adequate prenatal care utilization, birth control nonusers before pregnancy, without history of previous live births, and with three or more stressful life events. In contrast, women whose pregnancies were unintended and those who received prenatal birth control counseling were more likely to use contraception postdelivery (Table 1).

#### 3.1. Preconception IPV

The odds of postpartum contraceptive use were lower for women reporting preconception IPV than women not exposed to IPV. Among non-Hispanic white women who received prenatal birth control counseling, those who reported preconception IPV had significantly decreased odds of postpartum contraceptive use even after adjusting for confounding factors (Table 2). Likewise, among non-Hispanic black women who received prenatal birth control counseling, preconception IPV decreased the odds of postpartum contraceptive use even in a fully adjusted model. While estimates were not significant among Hispanic and non-Hispanic other women who received prenatal birth control counseling, the associations were negative.

The largest magnitude of effect among those who did *not* receive prenatal birth control counseling was observed for Hispanic women. In fact, preconception IPV was associated with a 41% decreased odds for postpartum contraceptive use even after adjusting for insurance. Among all other racial/

ethnic groups who did not receive prenatal birth control counseling, no significant differences in postpartum contraceptive use were observed between women who were IPV exposed and not IPV exposed. Receipt of birth control counseling mitigated differences between exposure groups for Hispanic and non-Hispanic other women compared to those who received no counseling. In other words, estimates were more robust for Hispanic and non-Hispanic other women who did *not* receive birth control counseling.

#### 3.2. Prenatal IPV

Among non-Hispanic white, non-Hispanic black and Hispanic women who received prenatal birth control counseling, women who reported prenatal IPV were significantly less likely to report postpartum contraceptive use than those with no IPV. No significant differences in postpartum contraceptive use were observed between IPV groups in parsimonious adjusted models for non-Hispanic other women who received birth control counseling during prenatal care. Among those who did *not* receive prenatal birth control counseling, there were no significant differences between abuse groups for all race/ethnicity; however, the associations were negative (Table 3).

#### 3.3. Preconception and prenatal IPV

Among all non-Hispanic women who received prenatal birth control counseling, those who reported both preconception and prenatal IPV had significantly decreased odds of postpartum contraceptive use (Supplementary Table 1). No significant differences in postpartum contraceptive use were observed between IPV groups among Hispanic women who received prenatal birth control counseling. However, for Hispanic women who did *not* receive prenatal birth control counseling, there were significant differences between IPV-exposed and not IPV-exposed groups.

#### 3.4. Preconception and/or prenatal IPV

In terms of preconception and/or prenatal IPV, IPVexposed non-Hispanic white, non-Hispanic black and non-Hispanic other women who received prenatal birth control counseling had significantly lower odds of using postpartum contraceptive use compared to their nonexposed counterparts (Supplementary Table 2). In contrast, among Hispanic women with *no* prenatal birth control counseling, those who reported preconception and/or prenatal IPV had decreased odds of postpartum contraceptive use compared to those with no IPV.

#### 4. Discussion

Results from the current study add to the emerging literature on IPV and women's reproductive and contraceptive practices. This study found an inverse relationship between IPV around the time of pregnancy and postpartum

 Table 1

 Weighted distribution of maternal characteristics by postpartum contraceptive use.

Maternal characteristics	Total N=193,310	Use <i>n</i> =162,509	No use <i>n</i> =30,801	COR (95% CI)					
	Weighted column %								
Age (years)									
<20	9.1	9.1	9.0	0.94 (0.87-1.02)					
20-24	23.8	24.0	22.6	1.00					
25-29	28.8	29.3	25.8	1.07 (1.01-1.13)					
30-34	23.7	23.7	23.5	0.95 (0.89-1.01)					
35+	14.6	13.8	19.1	0.68 (0.64-0.74)					
Education									
<12 years	17.2	16.8	19.3	0.86 (0.81-0.91)					
12 years	28.7	28.6	29.3	0.96 (0.91-1.01)					
13-15 years	23.7	24.1	21.3	1.12 (1.06-1.18)					
16+ years	30.4	30.5	30.0	1.00					
Income									
< \$20,000	34.8	34.4	37.3	0.93 (0.88-0.97)					
\$20,000-\$34,999	17.3	17.6	15.8	1.12 (1.05-1.19)					
\$35,000-\$49,999	10.7	10.9	9.7	1.14 (1.05-1.22)					
\$50,000+	37.1	37.1	37.3	1.00					
Married									
Yes	63.6	63.7	63.2	1.00					
No	36.4	36.3	36.8	0.98 (0.94-1.02)					
Race/ethnicity									
White, non-Hispanic	62.2	62.8	58.8	1.00					
Black, non-Hispanic	15.4	15.3	15.9	0.90 (0.85-0.95)					
Hispanic	15.9	15.9	15.8	0.94 (0.89-1.00)					
Other, non-Hispanic	6.5	6.0	9.4	0.60 (0.56-0.64)					
Insurance									
Private/HMO	39.2	39.2	39.6	1.00					
Medicaid	34.1	34.2	33.8	1.02 (0.97-1.07)					
No coverage	3.6	3.5	4.5	0.78 (0.69-0.88)					
Other	1.5	1.5	1.8	0.81 (0.69-0.95)					
Multiple	21.5	21.7	20.3	1.09 (1.03-1.15)					
Adequacy of prenatal care									
Inadequate	11.4	11.0	13.7	0.76 (0.71-0.81)					
Intermediate	13.8	13.6	14.8	0.87 (0.81-0.92)					
Adequate	44.9	45.3	42.7	1.00					
Adequate plus	29.9	30.1	28.8	0.98 (0.94-1.03)					
WIC recipient									
Yes	43.6	43.6	43.9	0.99 (0.95-1.03)					
No	56.4	56.4	56.1	1.00					
Prenatal smoking									
Yes	12.3	12.2	13.0	0.93 (0.88–0.99)					
No	87.7	87.8	87.0	1.00					
Pre-pregnancy birth control use									
Yes	23.1	25.4	10.3	1.00					
No	76.9	74.6	89.7	0.34 (0.32-0.36)					
Pre-pregnancy multivitamin use									
None	55.5	55.8	53.9	1.11 (1.06–1.16)					
1-3 times per week	8.5	8.5	8.2	1.11 (1.02–1.19)					
4–6 times per week	6.2	6.2	6.3	1.05 (0.96-1.15)					
Everyday	29.8	29.5	31.6	1.00					
Previous live births									
Yes	58.1	58.8	54.2	1.00					
No	41.9	41.2	45.8	0.83 (0.80-0.87)					
Stressful life events									
0	29.3	29.3	29.5	1.00					
1	24.3	24.5	23.4	1.06 (1.00-1.12)					
2	17.3	17.5	15.9	1.11 (1.04–1.18)					
3 or more	29.1	28.7	31.2	0.92 (0.88-0.97)					
Pregnancy intention									
Unintended	41.0	42.5	33.1	1.49 (1.43–1.56)					
Intended	59.0	57.5	66.9	1.00					

(continued on next page)

Table 1 (continued)

Maternal characteristics	Total N=193,310	Use <i>n</i> =162,509	No use <i>n</i> =30,801	COR (95% CI)					
	Weighted column %	column %							
Prenatal birth control counseling									
Yes	80.2	81.7	72.2	1.72 (1.64-1.80)					
No	19.8	18.3	27.8	1.00					
IPV									
Preconception IPV only	2.9	2.8	3.7	0.74 (0.67-0.83)					
Prenatal IPV only	1.1	1.0	1.7	0.62 (0.52-0.73)					
Preconception and prenatal IPV	2.5	2.2	3.8	0.59 (0.52-0.66)					
Preconception and/or prenatal IPV	6.2	5.8	8.6	0.66 (0.61-0.71)					

COR, crude odds ratio.

contraceptive use, regardless of race/ethnicity and receipt of prenatal birth control counseling. In other words, women who experienced IPV were less likely to report contraceptive use after their most recent delivery. This was particularly true for Hispanic women who did not receive prenatal birth control counseling and other race/ethnic groups who did receive birth control counseling.

Findings are consistent with prior research that point to an inverse relationship between partner violence and contraceptive use among women [4,17,18,23,24]. In a large study of low-income first-time mothers enrolled in the Nurse Family Partnership program, contraception use at 24 months postdelivery was negatively associated with IPV exposure 12 months postpartum [4]. Fewer abused women actively engaged in preventing a subsequent pregnancy compared to women who

reported no IPV (p=.001). Dunn and Oths [23] reported that women abused by a partner during pregnancy were less likely to use birth control but also less likely to want a child once they conceived. The authors posited that this might be explained by women's partners preventing them from obtaining contraception or refusing to use barrier methods.

A growing number of studies have explored the role of male partners in women's decisions about contraceptive use and pregnancy particularly in abusive relationships [7,21–24]. While it has been previously documented that partner support is an important factor in contraceptive decisions [32], interference and opposition by partners can have detrimental effects on initiation or continuation of method [24,26]. A recent study that examined issues of reproductive control among women reported that factors such as partner

Table 2

Association	between preconception IP	V and postpartun	n contraceptive use stratifi	ed by race/ethnicit	y and receipt of	f prenatal birth contro	l counseling.
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	COR (95% CI)	<sup>a</sup> Parsimonious AOR (95% CI)	<sup>b</sup> Fully AOR (95% CI)
Received prenatal birth cor	ntrol counseling		
Preconception IPV	-		
NH white	0.67 (0.56-0.80)	°0.64 (0.53–0.77)	0.72 (0.58-0.89)
NH black	0.75 (0.58-0.98)	<sup>d</sup> 0.75 (0.58–0.98)	0.71 (0.52-0.95)
Hispanic	0.83 (0.61–1.13)	°0.98 (0.72–1.34)	1.00 (0.69–1.46)
NH other	0.93 (0.57-1.52)	f0.82 (0.50-1.34)	0.70 (0.37-1.33)
No IPV	1.00	1.00	1.00
Did not receive prenatal bin	rth control counseling		
Preconception IPV			
NH white	0.99 (0.72-1.38)	<sup>g</sup> 1.05 (0.73–1.49)	0.96 (0.65-1.42)
NH black	0.64 (0.39–1.05)	<sup>h</sup> 0.72 (0.42–1.22)	0.63 (0.35-1.16)
Hispanic	0.49 (0.30-0.79)	<sup>i</sup> 0.59 (0.35–0.99)	0.61 (0.32–1.15)
NH other	0.81 (0.37–1.77)	<sup>j</sup> 0.66 (0.29–1.48)	0.67 (0.25-1.77)
No IPV	1.00	1.00	1.00

<sup>a</sup> Parsimonious adjusted odds ratio.

<sup>b</sup> Fully adjusted model controlling for maternal age, education, income, marital status, insurance, adequacy of prenatal care utilization, participation in WIC, prenatal smoking, pre-pregnancy contraceptive use, pre-pregnancy multivitamin use, parity, stressful life events and pregnancy intention.

<sup>c</sup> Parsimonious adjusted model controlling for pregnancy intention and education.

<sup>d</sup> No covariate resulted in a 10% or greater change in estimate.

e Parsimonious adjusted model controlling for stressful life events.

<sup>f</sup> Parsimonious adjusted model controlling for pregnancy intention.

<sup>g</sup> Parsimonious adjusted model controlling for pregnancy intention and income.

<sup>h</sup> Parsimonious adjusted model controlling for income.

<sup>i</sup> Parsimonious adjusted model controlling for insurance.

<sup>j</sup> Parsimonious adjusted model controlling for stressful life events.

Association between	nranatal IDV (	and nostr	artum contrace	ative use of	ratified by	race/ethnicity	and receiv	st of	propotal 1	nirth c	ontrol	counceling
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	1				~							

	COR (95% CI)	<sup>a</sup> Parsimonious AOR (95% CI)	<sup>b</sup> Fully AOR (95% CI)
Received prenatal birth	control counseling		
Prenatal IPV			
NH white	0.67 (0.49-0.91)	°0.64 (0.46–0.88)	0.71 (0.50-1.01)
NH black	0.60 (0.43-0.83)	<sup>d</sup> <b>0.68 (0.48–0.97)</b>	0.70 (0.47-1.04)
Hispanic	0.45 (0.29-0.70)	°0.50 (0.31–0.80)	0.56 (0.32-0.97)
NH other	0.60 (0.34–1.04)	f0.56 (0.30–1.03)	0.39 (0.20-0.76)
No IPV	1.00	1.00	1.00
Did not receive prenatal	birth control counseling		
Prenatal IPV			
NH white	0.76 (0.46-1.28)	<sup>g</sup> 0.90 (0.52–1.55)	0.82 (0.46-1.49)
NH black	0.79 (0.38-1.64)	<sup>h</sup> 1.04 (0.50–2.16)	0.85 (0.38-1.89)
Hispanic	0.59 (0.22-1.59)	<sup>i</sup> 0.39 (0.14–1.05)	0.42 (0.14-1.20)
NH other	1.27 (0.55-2.93)	<sup>j</sup> 0.78 (0.30–2.01)	0.60 (0.22-1.66)
No IPV	1.00	1.00	1.00

<sup>a</sup> Parsimonious adjusted odds ratio.

Table 3

<sup>b</sup> Fully adjusted model controlling for maternal age, education, income, marital status, insurance, adequacy of prenatal care utilization, participation in WIC, prenatal smoking, pre-pregnancy contraceptive use, pre-pregnancy multivitamin use, parity, stressful life events and pregnancy intention.

<sup>c</sup> Parsimonious adjusted model controlling for pregnancy intention and stressful life events.

<sup>d</sup> Parsimonious adjusted model controlling for pre-pregnancy contraceptive use.

<sup>e</sup> Parsimonious adjusted model controlling for stressful life events and pre-pregnancy contraceptive use.

<sup>f</sup> Parsimonious adjusted model controlling for pregnancy intention and income.

<sup>g</sup> Parsimonious adjusted model controlling for income.

<sup>h</sup> Parsimonious adjusted model controlling for pre-pregnancy multivitamin use and income.

<sup>i</sup> Parsimonious adjusted model controlling for income, insurance and education.

<sup>j</sup> Parsimonious adjusted model controlling for stressful life events, insurance, pregnancy intention and prenatal smoking.

unwillingness to use birth control or wanting respondent to get pregnant, and partner making it difficult to use birth control were highly associated with IPV [24]. Difficulties negotiating contraceptive use and fear of violence as retribution for refusing sex are increasingly recognized as mechanisms underlying abusive relationships and increasing risk of unintended pregnancy [21].

It is notable that among Hispanic women who did not receive birth control counseling, there were significant differences between women exposed to IPV and women not exposed to IPV in postpartum contraceptive use. However, differences became nonsignificant for Hispanic women who received prenatal birth control counseling. Data from the 2004–2005 Florida PRAMS indicated that women with prenatal contraceptive counseling were 50% more likely to report postpartum contraceptive use [33]. This may be especially true for Latinas who have reported lower self-efficacy and social support in contraceptive use than non-Hispanic white women [34]. Discussions with health providers may help encourage Hispanic women to use effective contraceptive methods and avoid unintended pregnancy despite abusive relationships.

For all other races/ethnicities, significant differences in postpartum contraceptive use between IPV-exposed and not IPV-exposed groups were observed among those who received prenatal birth control counseling. It is possible that these women need more than the standard counseling. Patient-provider discussions may need to consider contraceptive strategies that are not partner dependent for women reluctant to leave abusive relationships. Reproductive health counseling for women experiencing IPV may include an assessment of partner influence on women's sexual and health care practices, risk-reduction strategies such as long-acting reversible contraceptives (LARCs) to prevent unintended and rapid repeat pregnancy, and promotion of preventive health care such as testing for early pregnancy or sexually transmitted infections [35]. In other words, a comprehensive approach that integrates family planning and violence prevention services may be more effective in improving contraceptive use. Current findings suggest that prenatal birth control counseling is more beneficial to women not exposed to IPV, while those exposed to IPV could gain from additional/intensive intervention. Correspondingly, for those who never received counseling, the lack of statistical significance in contraceptive use between the IPV-exposed groups could be explained by the absence of beneficial effects of counseling to women not exposed to IPV.

This study has several strengths: examination of IPV by timing of abuse, adequate sample size and power to assess differences between IPV-exposed groups, and relying on data collected with standardized protocols and instruments. In addition, many important covariates were considered to examine the degree to which IPV was associated with postpartum contraceptive use, independent from confounding factors and all other covariates. A limitation to this study is the cross-sectional design that renders it difficult to determine a causal relationship; however, questions clearly indicated timings of abuse (before or during pregnancy) and contraceptive use (postdelivery). Since PRAMS is administered at varying times after delivery, reported contraceptive use at the time of interview may be limited by participants' inconsistent use of methods. PRAMS data do not report the severity or frequency of physical violence, nor do they include sexual and psychological dimensions of IPV in the core questionnaire, which underestimates the true prevalence. Nonetheless, the prevalence of physical abuse in the current study was comparable to previous studies using PRAMS data [12,30]. It also does not provide information on the quality of prenatal birth control counseling. Lastly, recall bias regarding birth control discussions with providers or exposure to IPV may have affected the results.

The current study highlights the negative impact of IPV on postpartum contraceptive use. Results from this study help better our understanding of how partner violence leads to adverse reproductive outcomes. Under the Patient Protection Affordable Care Act, the expansion of state-run Medicaid programs and increased adoption of IPV screening recommendations by the U.S. Preventive Service Task Force will provide clinicians and other health care workers the opportunity to identify and help more victims of partner violence. Health providers should tailor family planning services to fit the unique needs of patients and discuss the full spectrum of contraceptive methods, including LARCs and other methods that are not partner dependent, within the context of abusive relationships. Furthermore, LARCs may be a good option for women who, because of exposure to violence, are not able to make separate visits for contraception. Thus, findings support the critical need for better integration of violence prevention and contraceptive services.

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