Intimate Partner Violence around the Time of Pregnancy and Postpartum Contraceptive Use

Adrienne A. Stevenson, MD[a], **Brenda L. Bauman, MSPH**[b], **Lauren B. Zapata, PhD, MSPH**[b], **Indu B. Ahluwalia, PhD, MPH**[c], **Naomi K. Tepper, MD, MPH**[b,*]

[a]Emory University Department of Gynecology and Obstetrics, Atlanta, Georgia

[b]Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia

[c]Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia

Abstract

Objectives: We sought to examine postpartum contraceptive use among women who reported physical intimate partner violence (IPV) during or within 12 months before pregnancy compared with women who did not report physical IPV and to identify factors associated with nonuse of contraception among women who reported physical IPV.

Methods: Data were obtained from women with a recent live birth from 2012 to 2015 who participated in the Pregnancy Risk Assessment and Monitoring System. We described characteristics of women and postpartum contraceptive use by method effectiveness (most effective [female sterilization, male sterilization, intrauterine device, implant], moderately effective [injectable, pill, patch, ring], less effective [condoms, natural family planning, withdrawal, other]) or no method, stratified by reported physical IPV. Multivariable logistic regression was used to examine characteristics associated with nonuse of contraception among women who reported physical IPV.

Results: The proportion of women using most or moderately effective contraception was similar for women reporting and not reporting physical IPV. Less effective contraceptive use was lower among women who reported physical IPV (13.9%) than those who did not report physical IPV (25.1%) ($p < .001$). Nonuse was higher among women who reported physical IPV (33%) than those who did not report physical IPV (21%) ($p < .001$). Having no health insurance at the time of survey and experiencing traumatic stress within 12 months before delivery were associated with nonuse of contraception among women who reported physical IPV.

Conclusions: The higher proportion of contraception nonuse among women who reported physical IPV indicates a potential unmet need for contraception among this vulnerable population.

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*Correspondence to: Naomi K. Tepper, MD, MPH, Centers for Disease Control and Prevention, 4770 Buford Highway, Mailstop S107-2, Atlanta, GA 30341. ntepper@cdc.gov (N.K. Tepper).

[1]Women were reclassified as using sterilization if they answered no to the first question but reported "I had my tubes tied or blocked" or "My husband or partner had a vasectomy" to the question "What are your reasons or your husband's or partner's reasons for not doing anything to keep from getting pregnant now?"

Recommended screening for IPV and counseling about the full range of contraceptive methods should begin during pregnancy and continue through the postpartum period.

Intimate partner violence (IPV) is a substantial public health problem. More than 30% of women experience physical violence and more than one in five women experience severe physical violence by an intimate partner during their lifetime (Smith et al., 2018). Sexual relationships affected by violence and coercion may interfere with a woman's ability to maintain continuous contraceptive use, which may increase a woman's risk of unintended pregnancy (Grace & Anderson, 2018). Reproductive coercion by a male partner includes both pregnancy coercion (e.g., threatening to harm a woman physically or psychologically if she does not become pregnant) and contraceptive sabotage (e.g., condom manipulation and other active interference with contraceptive methods) (Miller et al., 2010). Studies have found that women who experience IPV have increased difficulty accessing and using contraception, increased unintended pregnancies, and increased termination of pregnancies (Gee, Gupta, Decker, Kapur, & Raj, 2009; Grace & Anderson, 2018; Miller et al., 2010; Silverman, Gupta, Decker, Kapur, & Raj, 2007). Studies have also found that condom use negotiations are more difficult for women who experience IPV and these women are more likely to report forced condom nonuse and fear of requesting condom use by a sexual partner (Champion & Shain, 1998; Decker et al., 2014).

Women who experience IPV before or during pregnancy may face additional challenges using contraception postpartum compared with women who do not experience IPV. Postpartum contraceptive use is important to avoid negative consequences of unintended pregnancy and short birth intervals (Gipson, Koenig, & Hindin, 2008; Zhu, 2005). A recent study found that only 57% of postpartum women reported using one of the most effective (permanent sterilization, intrauterine devices [IUDs], or implants) or moderately effective (injectable, pill, patch, ring, or diaphragm) contraceptive methods (Robbins et al., 2018). However, little is known about prevalence of and factors contributing to contraceptive use among postpartum women who experienced IPV around the time of pregnancy. Our analysis aimed to examine postpartum contraceptive use among women who reported IPV during or within 12 months before pregnancy compared with women who did not report IPV. Women with certain demographic and socioeconomic characteristics, such as young age, being unmarried, members of racial/ethnic minority groups, having lower income, and having financial stress, may have elevated risk of experiencing IPV (Capaldi, Knoble, Shortt, & Kim, 2012). Similar factors contribute to barriers to use of contraception (Dehlendorf, Rodriguez, Levy, Borrero, & Steinauer, 2010). Therefore, we also sought to identify whether these factors were associated with nonuse of contraception among women who reported IPV.

Methods

Data on physical IPV around the time of pregnancy and postpartum contraceptive use were derived from the Pregnancy Risk Assessment Monitoring System (PRAMS), a surveillance project of the U.S. Centers for Disease Control and Prevention and state health departments. PRAMS collects state-specific population-based data on maternal attitudes and experiences before, during, and shortly after pregnancy. Every month in each participating state, a sample of mothers is selected from live birth certificates filed in the previous month to

receive a mailed questionnaire. To increase representativeness of high-risk populations, many states oversample low weight births and other subgroups, such as those living in high-risk geographic areas and racial/ethnic minorities; the survey uses a weighting process to account for sampling, nonresponse, and noncoverage (Shulman, D'Angelo, Harrison, Smith, & Warner, 2018). Questionnaires are mailed between 2 and 6 months after delivery. Responses from the questionnaires are linked to birth certificate records. The PRAMS project was approved by the Centers for Disease Control and Prevention's and local site Institutional Review Boards; participating states approved the analysis plan.

This analysis used data from PRAMS phase 7, which includes women who experienced a live birth from 2012 to 2015 in 36 states and 1 city with a 60% or greater response rate (29 sites in 2012, 31 sites in 2013, and 28 sites in 2014) or 55% or greater response rate (34 sites in 2015). After excluding women who were currently pregnant or had a hysterectomy, 145,099 women were included in the analysis.

Physical IPV was measured by asking the following questions: "During the 12 months before you got pregnant with your new baby, did your husband or partner push, hit, slap, kick, choke, or physically hurt you in any other way?" and "During your most recent pregnancy, did your husband or partner push, hit, slap, kick, choke, or physically hurt you in any other way?". Women were classified as having experienced physical IPV around the time of pregnancy if they answered yes to either question.

Use of postpartum contraception was assessed by asking the following questions: "Are you or your husband or partner doing anything now to keep from getting pregnant?" and "What kind of birth control are you or your husband or partner using now to keep from getting pregnant?". Respondents who answered no to the first question were classified as using no method.[1] Women answering yes were classified by the method they reported currently using by method effectiveness category: most effective (female sterilization, male sterilization, IUD, or implant), moderately effective (injectable, birth control pill, contraceptive patch, or vaginal ring), or less effective (condoms, natural family planning including rhythm method, withdrawal, or other) (Trussell, 2011). If women reported using more than one method, they were categorized as using the method with the greater effectiveness (Trussell, 2011). Respondents reporting abstinence (6% of women reporting physical IPV and 3% of women not reporting physical IPV) were classified as using no method.

Sociodemographic characteristics examined included age (19, 20–25, 26–34, 35 years), race/ethnicity (non-Hispanic White, non-Hispanic Black, Hispanic, other), education (<12 years, 12 years, >12 years), marital status (married, unmarried at time of delivery), parity before recent birth (primiparous, multiparous) and health insurance at the time of survey completion (private, Medicaid, none). Behavioral characteristics examined included initiation of prenatal care (first trimester, later, none), and alcohol or smoking during the last 3 months of pregnancy. To examine stress in the 12 months before birth, stressors were grouped into four separate types: emotional stressors (illness in family, someone

close died, husband/partner away for long time), financial stressors (moved to new address, husband/partner lost job, I lost job, problem paying bills, cut in pay), relationship stressors (divorced/separated, argued more than usual, husband/partner didn't want pregnancy), and traumatic stressors (homeless, husband/partner/I went to jail, someone close had alcohol/drug problem). Outcomes of the most recent pregnancy included mode of delivery (vaginal or cesarean), preterm birth, infant death, depressive symptoms since delivery, and intendedness of pregnancy (intended, unintended [includes mistimed and unwanted], unsure). Women were categorized as having depressive symptoms since delivery if they reported that they always, often, or sometimes felt down, depressed, or hopeless or had little interest or little pleasure in doing things. Most information was obtained from the PRAMS survey; however, certain information was obtained from linked birth certificates (i.e., race/ethnicity, maternal education, marital status, parity, mode of delivery, and preterm birth).

Percentages and 95% confidence intervals (CIs) were calculated to describe sample characteristics, postpartum contraceptive use, and reasons for nonuse, stratified by physical IPV experience; χ^2 tests were used to assess differences between groups. We conducted bivariate analyses to compare postpartum contraceptive methods used between women who reported physical IPV during 12 months before the pregnancy and those who reported physical IPV during the most recent pregnancy. The distribution of contraceptive methods used was similar between these two groups; therefore, these groups were combined for all analyses to represent physical IPV around the time of pregnancy. Among women who experienced physical IPV, bivariate analyses were conducted to estimate crude odds ratios (OR) and 95% CIs for characteristics associated with nonuse compared with use of any contraception. Multivariable logistic regression was conducted to calculate adjusted ORs and 95% CIs for characteristics associated with nonuse compared with use. Stepwise regression was used and only significant variables ($p < .05$) were retained in the final model. A sensitivity analysis was conducted to examine characteristics associated with nonuse among sexually active women not currently seeking pregnancy; women who reported not having sex or wanting to get pregnant were excluded from this analysis ($n = 494$ who reported IPV and 12,516 who did not). All analyses were conducted using SAS version 9.4 (SAS Institute, Cary, NC) and SAS-callable SUDAAN to account for sample design and statistical weights.

Results

Of the total sample of 145,099 women, 5,529 (3.3%) reported physical IPV around the time of pregnancy and 139,570 (96.7%) did not. Table 1 compares characteristics between women who reported physical IPV and women who did not ($p < .001$ for all comparisons shown in the table). Among women who reported physical IPV compared with women who did not, a larger percentage were aged 19 years or younger (12.0% vs. 5.3%) or aged 20 to 25 (39.3% vs. 25.7%). A higher proportion of women who reported physical IPV were non-Hispanic Black (23.0% vs. 12.8%) and unmarried (74.2% vs. 37.0%), compared with women who did not report physical IPV. A higher proportion of women who reported physical IPV had fewer than 12 years of education (20.4% vs. 13.0%) or 12 years of education (36.6% vs. 23.9%), compared with women who did not report physical IPV. A higher proportion of women who reported physical IPV stated that the

most recent pregnancy was unintended (47.0%) or they were unsure about their intention (24.8%) compared with those who did not report physical IPV (28.4% unintended and 14.2% unsure). Women experiencing physical IPV had a higher proportion of initiating prenatal care after the first trimester and had a higher proportion on Medicaid at the time of the survey than women who did not report physical IPV. A higher proportion of women reporting physical IPV reported stressors during the 12 months before delivery, depressive symptoms after delivery, and smoking during the last 3 months of pregnancy, compared with women who did not report physical IPV. There were no significant differences between groups in alcohol use during the last 3 months of pregnancy, parity, mode of delivery, and infant death ($p > .05$; data not shown).

Table 2 compares postpartum contraceptive use between women reporting and not reporting physical IPV. The proportion of women using the most effective methods of contraception (female sterilization, male sterilization, IUD, or implant) was similar among women reporting physical IPV (26.9%) and women not reporting physical IPV (26.4%) ($p = .63$). Long-acting reversible contraceptive use (IUD or implant) was similar among women reporting IPV (17%) and not reporting IPV (15%) (data not shown). The proportion of women using moderately effective methods (injectable, pill, patch, or ring) was also similar between women reporting physical IPV (26.1%) and women not reporting physical IPV (27.6%) ($p = .17$). The proportion of women using less effective methods (condoms, natural family planning, withdrawal, or other) was lower among women reporting physical IPV (13.9%) than women not reporting physical IPV (25.1%) ($p < .001$). A larger percentage of women who experienced physical IPV did not use any method of contraception postpartum compared with women who did not experience physical IPV (33.1% vs. 21.0%, $p < .001$).

Table 3 examines the subset of women not using contraception and compares reasons for nonuse between women who reported ($n = 1,805$) and did not report ($n = 28,605$) physical IPV. Among women who experienced physical IPV, approximately 55% reported that they were not currently having sex (including women recoded because they reported abstinence as a contraceptive method), which was higher than the 36% among women who did not report physical IPV ($p < .001$). The percent of women who stated that they wanted to get pregnant was lower among women who reported physical IPV than women who did not report physical IPV (9.2% vs. 15.1%) ($p = .001$); the proportion who did not want to use birth control was also lower among women who reported physical IPV than among women who did not report physical IPV (21.5% vs. 29.5%) ($p < .001$). More women reporting physical IPV stated that they had problems getting birth control (9.1%) compared with women who did not report physical IPV (3.1%) ($p < .001$).

Table 4 shows crude and adjusted ORs (aORs) for characteristics associated with nonuse of contraception among women who reported physical IPV ($n = 5,424$ women who reported physical IPV and nonmissing data). Among women who reported physical IPV, a lack of health insurance at the time of survey and reporting a traumatic stressor during 12 months before delivery were associated with nonuse of contraception (aOR, 1.53; 95% CI, 1.09–2.14 and aOR 1.52; 95% CI, 1.08–2.15, respectively). In a sensitivity analysis excluding women who reported not having sex or wanting to get pregnant as reasons for nonuse, lack of health insurance at time of survey was similarly associated with nonuse of contraception

(aOR 2.2; 95% CI, 1.38–3.53). Depressive symptoms since delivery were also associated with nonuse (aOR 1.40; 95% CI, 1.02–2.00) (data not shown).

Discussion

Our study suggests that a greater proportion of women with a recent live birth who experienced physical IPV around the time of pregnancy do not use contraception postpartum, compared with women who do not experience physical IPV. Similar to our study, another study that used PRAMS data from all states from 2004 to 2008 found that women who reported IPV were less likely to use contraception postpartum than women who did not report IPV (crude OR, 0.66; 95% CI, 0.61–0.71) (Cha, Chapman, Wan, Burton, & Masho, 2015). Another study from India also found that a higher proportion of women who reported IPV did not use contraception immediately postpartum compared with women who did not report IPV; however, the only methods reported in this study were copper IUDs and progestin-only pills and timing of survey completion was not specified (Mundhra, Singh, Kaushik & Mendiratta, 2016).

A higher proportion of women who reported physical IPV reported having problems getting birth control than women who did not report physical IPV. Although specific reasons were not elucidated in the survey, barriers may include cost, lack of access to care, or lack of insurance. We found that, among women who reported physical IPV, women without insurance at the time of survey completion had increased odds of reporting nonuse of contraception postpartum. Lack of insurance remained associated with nonuse of contraception in our sensitivity analysis excluding women who were not sexually active or who wanted to become pregnant. The association between lack of insurance and contraceptive nonuse may highlight an access barrier. Most women have insurance at the time of delivery, but for women whose Medicaid coverage at delivery is based on pregnancy eligibility only, they may lose this coverage at 60 days postpartum (Daw et al., 2016). Women who experience IPV may have additional challenges to accessing and using contraception, and initiating contraception in the immediate postpartum period may be an ideal time to initiate a method that is effective and not subject to partner interference and negotiation (Gee et al., 2009).

We found similar rates of use of most or moderately effective methods between women who did and did not report physical IPV. Our analysis also found that women who reported physical IPV were less likely to use methods such as condoms, natural family planning, and withdrawal, methods that may be more subject to partner negotiation and therefore may have led to the higher rates of nonuse. The American College of Obstetricians and Gynecologists suggests that use of methods that are less detectable to partners, such as IUDs, implants, and injectables, may be beneficial for women who experience IPV (ACOG, 2013).

Our analysis suggests that traumatic stressors or depression may also be associated with nonuse of contraception among women who reported physical IPV. The traumatic stressors included being homeless, jailed (participant or partner), or someone close had alcohol or drug problem, which could indicate severity of IPV or could further contribute to challenges accessing health care. Some studies have found that depressive symptoms are associated

with nonuse, inconsistent or incorrect use, and earlier discontinuation of contraception (Hall, Steinberg, Cwiak, Allen, & Marcus, 2015; Steinberg & Rubin, 2014). This association was only found when limiting our analysis to those who reported nonuse due to not having sex or wanting to get pregnant. Nonetheless, heightened awareness about contraceptive challenges may be needed by providers when caring for women who screen positive for postpartum depression, particularly in the setting of IPV.

Some strengths of this analysis are the inclusion of multiple states and a large sample size. In addition, inclusion of all women who experienced IPV, regardless of reasons for nonuse of contraception, may increase generalizability of results. However, several limitations to this analysis should be considered. Women who experience IPV by their intimate partner may be less likely to participate in the survey, and for women who do participate, nondisclosure may lead to underreporting of experiences with physical abuse. Smoking may also be under-reported by participants due to social desirability. The PRAMS questionnaire does not gather information on severity or chronicity of physical violence. In addition, we only assessed physical IPV and did not examine psychological or emotional abuse because it is only assessed by certain states. The survey does not provide information on when women actually initiated contraception, only what method they are using at the time of the survey. Given this lack of information on timing, it is also not clear whether insurance status at the time of survey completion reflects status at the time of contraceptive initiation.

Implications for Practice and/or Policy

The higher rate of contraceptive nonuse among women with recent IPV compared with those without it suggests a potential unmet need for contraception among those who experienced IPV before, during, or shortly after pregnancy. In addition to following guidelines for screening for IPV during pregnancy (ACOG, 2012) and offering education and resources regardless of disclosure (Miller et al., 2011, 2016), providers should offer recommended patient centered contraceptive counseling throughout the prenatal period, and facilitate access to desired methods after delivery.

Conclusions

Women who experienced IPV were more likely to report nonuse of contraception than women without IPV. This indicates a potential unmet need for contraception among this vulnerable population. The most common reason for nonuse was not currently having sex; contraceptive needs in the postpartum period may need to be reassessed over time to avoid an unintended pregnancy. Lack of insurance, traumatic stress, and depressive symptoms may represent important financial and psychosocial barriers to use of contraception among women with IPV. Recommended universal screening for IPV is critical to decrease harms to women. Patient-centered counseling on the full range of contraceptive methods for postpartum use should begin in the prenatal period and continue through the postpartum period.

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Acknowledgments

Biographies

Adrienne A. Stevenson, MD, is an obstetrician-gynecologist in Washington, DC. Her research interests include ethnic disparities in obstetrical outcomes and intimate partner violence.

Brenda L. Bauman, MSPH, is an epidemiologist in the Pregnancy Risk Assessment Monitoring System (PRAMS) team, within the Division of Reproductive Health, Centers for Disease Control and Prevention. Her interests include surveillance methodologies and maternal and child health.

CDR Lauren B. Zapata, PhD, MSPH, is a senior research scientist in the Division of Reproductive Health, Centers for Disease Control and Prevention. Among Lauren's research interests are promoting women's health and decreasing barriers to contraception use.

Indu B. Ahluwalia, PhD, MPH, is Branch Chief, Global Tobacco Control Branch in the Office on Smoking and Health, Centers for Disease Control and Prevention. Her research interests focus on health behaviors.

CAPT Naomi K. Tepper, MD, MPH, is a medical officer in the Division of Reproductive Health, Centers for Disease Control and Prevention. Her research interests include women's health and family planning.

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Table 1

Characteristics of Women with a Recent Live Birth, Stratified by Self-Reported Physical Intimate Partner Violence during or within 12 Months before Pregnancy, Pregnancy Risk Assessment Monitoring System, 2012–2015[*]

Characteristic	Women Who Reported Physical Intimate Partner Violence		Women Who Did Not Report Physical Intimate Partner Violence		p Value
	n[†]	%;[‡] (95% CI)	n[†]	%;[‡] (95% CI)	
Total	5,529	3.3[§] (3.1–3.4)	139,570	96.7[§] (96.6–96.9)	
Age (y)					<.001
19	678	12.0 (10.4–13.6)	8,523	5.3 (5.1–5.5)	
20–25	2,162	39.3 (37.1–41.6)	36,636	25.7 (25.3–26.1)	
26–34	2,181	39.5 (37.2–41.7)	71,820	52.6 (52.2–53.1)	
35	507	9.2 (7.9–10.6)	22588	16.4 (16.1–16.7)	
Race/ethnicity					<.001
Non-Hispanic White	2,267	50.6 (48.2–52.9)	72,110	60.7 (60.4–61.0)	
Non-Hispanic Black	1,439	23.0 (21.1–24.9)	22,072	12.8 (12.6–13.1)	
Hispanic	902	17.8 (15.9–19.8)	23,214	17.2 (16.9–17.4)	
Other	889	8.7 (7.5–9.8)	21,508	9.3 (9.1–9.5)	
Education (y)					<.0001
<12	1,161	20.4 (18.5–22.3)	19,172	13.0 (12.7–13.3)	
12	1,931	36.6 (34.3–38.9)	33,985	23.9 (23.5–24.2)	
>12	2,360	43.0 (40.7–45.2)	84,758	63.2 (62.7–63.6)	
Marital status					<.001
Married	1,400	25.8 (23.8–27.8)	84,807	63.0 (62.6–63.4)	
Unmarried	4,100	74.2 (72.2–76.2)	54,235	37.0 (36.6–37.4)	
Health insurance at time of survey completion					<.001
Private	1,262	27.8 (25.7–29.9)	72,615	57.7 (57.3–58.1)	
Medicaid	3,071	55.3 (52.9–57.7)	41,859	27.8 (27.5–28.2)	
None	856	16.9 (15.0–18.9)	18,300	14.5 (14.1–14.8)	
Prenatal care initiation					<.001
First trimester	3,978	73.6 (71.4–75.7)	115,940	85.9 (85.6–86.2)	
Later	1,298	25.1 (22.9–27.2)	19,085	14.1 (13.8–14.4)	

Characteristic	Women Who Reported Physical Intimate Partner Violence		Women Who Did Not Report Physical Intimate Partner Violence		p Value
	n[†]	%[‡] (95% CI)	n[†]	%[‡] (95% CI)	
No prenatal care	89	1.3 (0.8–1.9)	1,250	0.8 (0.7–0.9)	<.001
Smoking during last 3 months of pregnancy					<.001
Yes	1,776	29.1 (27.0–31.2)	14,616	9.1 (8.8–9.3)	
No	3,682	70.9 (68.8–73.0)	123,557	90.9 (90.7–91.2)	
Any emotional stressor[‖] during 12 months before delivery					<.001
Yes	2,580	45.3 (43.0–47.6)	46,336	32.6 (32.2–33.0)	
No	2,934	54.7 (52.4–57.0)	92,659	67.4 (67.0–67.8)	
Any financial stressor[¶] during 12 months before delivery					<.001
Yes	4,460	81.4 (80.0–83.1)	72,226	50.6 (50.2–51.0)	
No	1,053	18.6 (16.9–20.3)	66,784	49.4 (49.0–49.8)	
Any relationship stressor[#] during 12 months before delivery					<.001
Yes	4,627	82.5 (80.7–84.2)	39,993	27.4 (27.0–27.8)	
No	886	17.5 (15.8–19.3)	98,964	72.6 (72.2–73.0)	
Any traumatic stressor[**] during 12 months before delivery					<.001
Yes	3,243	56.7 (54.5–59.0)	19,422	12.7 (12.4–13.0)	
No	2,268	43.3 (41.0–45.5)	119,517	87.3 (87.0–87.6)	
Preterm birth					<.001
Yes (<37 weeks)	1,275	10.3 (9.1–11.4)	26,424	8.3 (8.1–8.5)	
No (≥37 weeks)	4,234	89.7 (88.6–90.9)	112,853	91.7 (91.5–91.9)	
Depressive symptoms since delivery[††]					<.001
Yes	3,724	67.6 (65.5–69.7)	53,370	35.8 (35.4–36.2)	
No	1,757	32.4 (30.3–34.5)	84,560	64.2 (63.8–64.6)	
Recent pregnancy intention					<.001
Intended	1,580	28.2 (26.1–30.3)	76,366	57.4 (57.0–57.9)	
Unintended	2,453	47.0 (44.7–49.3)	39,573	28.4 (28.0–28.8)	
Unsure	1,380	24.8 (22.8–26.8)	20,841	14.2 (13.9–14.5)	

Abbreviations: CI, confidence interval; OR, odds ratio.

[*]
Includes the following sites: Alabama (2014, 2015), Alaska (2012–2015), Arkansas (2012, 2013, 2015), Colorado (2012, 2013, 2015), Connecticut (2014, 2015), Delaware (2012–2015), Georgia (2012, 2013), Hawaii (2012–2015), Illinois (2012–2015), Iowa (2013–2015), Louisiana (2015), Maine (2012–2015), Maryland (2012–2015), Massachusetts (2012–2015), Michigan (2012, 2013, 2015),

Minnesota (2012, 2013), Missouri (2012, 2013), Nebraska (2012–2015), New Hampshire (2013–2015), New Jersey (2012–2015), New Mexico (2012–2015), New York City (2012–2015), New York State (2013–2015), Ohio (2012, 2014, 2015), Oklahoma (2012–2015), Oregon (2012, 2013, 2015), Pennsylvania (2012–2015), Rhode Island (2012–2014), Tennessee (2012–2015), Texas (2015), Utah (2012–2015), Vermont (2012–2015), Virginia (2015), Washington (2012–2015), West Virginia (2012–2015), Wisconsin (2012–2015), Wyoming (2012–2015).

[†] Unweighted sample size.

[‡] Weighted column percentage (except where noted).

[§] Weighted row percentage.

[‖] Emotional stressors included illness in family, someone close died, or husband/partner away for long time.

[¶] Financial stressors included moved to new address, husband/partner lost job, I lost job, problem paying bills, or cut in pay.

[#] Relationship stressors included divorced/separated, argued more than usual, or husband/partner didn't want pregnancy.

[**] Traumatic stressors included homeless, husband/partner/I went to jail, or someone close had alcohol/drug problem.

[††] Reported that they always, often, or sometimes "felt down, depressed, or hopeless" or "had little interest or little pleasure in doing things."

Table 2

Postpartum Contraceptive Use among Women with a Recent Live Birth, Stratified by Self-Reported Physical Intimate Partner Violence during or within 12 Months before Pregnancy, Pregnancy Risk Assessment Monitoring System, 2012–2015[*]

Postpartum Contraceptive Use[†]	Women Who Reported Physical Intimate Partner Violence		Women Who Did Not Report Physical Intimate Partner Violence		p Value
	n[‡]	%[§] (95% CI)	n[‡]	%[§] (95% CI)	
Total	5,424		137,493		
Most effective contraceptive methods[‖]	1,513	26.9 (24.9–28.9)	38,984	26.4 (26.0–26.8)	.63
Moderately effective contraceptive methods[¶]	1,388	26.1 (24.0–28.1)	37,732	27.6 (27.2–28.0)	.17
Less effective contraceptive methods[#]	718	13.9 (12.3–15.5)	32,172	25.1 (24.7–25.4)	<.001
No method [**]	1,805	33.1 (30.9–35.4)	28,605	21.0 (20.6–21.3)	<.001

[*] Includes the following sites: Alabama (2014, 2015), Alaska (2012–2015), Arkansas (2012, 2013, 2015), Colorado (2012, 2013, 2015), Connecticut (2014, 2015), Delaware (2012–2015), Georgia (2012, 2013), Hawaii (2012–2015), Illinois (2012–2015), Iowa (2013–2015), Louisiana (2015), Maine (2012–2015), Maryland (2012–2015), Massachusetts (2012–2015), Michigan (2012, 2013, 2015), Minnesota (2012, 2013), Missouri (2012–2015), Nebraska (2012–2015), New Hampshire (2013–2015), New Jersey (2012–2015), New Mexico (2012–2015), New York City (2012–2015), New York State (2013–2015), Ohio (2012, 2014, 2015), Oklahoma (2012–2015), Oregon (2012, 2013, 2015), Pennsylvania (2012–2015), Rhode Island (2012–2014), Tennessee (2012–2015), Texas (2015), Utah (2012–2015), Vermont (2012–2015), Virginia (2015), Washington (2012–2015), West Virginia (2012–2015), Wisconsin (2012–2015), Wyoming (2012–2015).

[†] If more than one method reported, woman classified as using the most effective of the methods.

[‡] Unweighted sample size.

[§] Weighted column percentage.

[‖] Female sterilization, male sterilization, intrauterine device, or implant.

[¶] Injectable, birth control pill, contraceptive patch, or vaginal ring.

[#] Condoms, natural family planning including rhythm method, withdrawal, or other.

[**] Includes women who reported "No" in response to the question "Are you or your husband or partner doing anything now to keep from getting pregnant?" and who reported abstinence in response to the question "What kind of birth control are you or your husband or partner using now to keep from getting pregnant?"

Table 3

Reasons for Nonuse of Contraception, Stratified by Self-Reported Physical Intimate Partner Violence during or within 12 Months before Pregnancy, Pregnancy Risk Assessment Monitoring System, 2012–2015[*]

Reasons for Nonuse[†]	Women Who Reported Physical Intimate Partner Violence (n = 1,805)		Women Who Did Not Report Physical Intimate Partner Violence (n = 28,605)		p Value
	n[‡]	%[§] (95% CI)	n[‡]	%[§] (95% CI)	
Not having sex[ǁ]	1,112	54.8 (50.8–58.7)	12,474	36.1 (35.2–36.9)	<.001
Want to get pregnant	133	9.2 (6.4–12.0)	4,273	15.1 (14.4–15.7)	.001
Don't want to use birth control	361	21.5 (17.9–25.0)	8,243	29.5 (28.7–30.3)	<.001
Worried about side effects from birth control	430	25.9 (21.9–30.0)	7,072	24.4 (23.6–25.2)	.46
Husband or partner doesn't want to use anything	224	11.1 (8.3–13.8)	2,811	9.5 (9.0–10.1)	.26
Has problems getting birth control when she needs it	117	9.1 (5.7–12.4)	963	3.1 (2.7–3.4)	<.001
Other	349	24.4 (20.3–28.6)	6,002	21.5 (20.7–22.3)	.16

[*] Includes the following sites: Alabama (2014, 2015), Alaska (2012–2015), Arkansas (2012, 2013, 2015), Colorado (2012, 2013, 2015), Connecticut (2014, 2015), Delaware (2012–2015), Georgia (2012, 2013), Hawaii (2012–2015), Illinois (2012–2015), Iowa (2013–2015), Louisiana (2015), Maine (2012–2015), Maryland (2012–2015), Massachusetts (2012–2015), Michigan (2012, 2013, 2015), Minnesota (2012, 2013), Missouri (2012–2015), Nebraska (2012–2015), New Hampshire (2013–2015), New Jersey (2012–2015), New Mexico (2012–2015), New York City (2012–2015), New York State (2013–2015), Ohio (2012, 2014, 2015), Oklahoma (2012–2015), Oregon (2012, 2013, 2015), Pennsylvania (2012–2015), Rhode Island (2012–2014), Tennessee (2012–2015), Texas (2015), Utah (2012–2015), Vermont (2012–2015), Virginia (2015), Washington (2012–2015), West Virginia (2012–2015), Wisconsin (2012–2015), Wyoming (2012–2015).

[†] Reasons for nonuse may not add to 100%, because participants asked to choose all that apply.

[‡] Unweighted sample size.

[§] Weighted column percentage.

[ǁ] Includes women who reported "No" in response to the question "Are you or your husband or partner doing anything now to keep from getting pregnant?" and who reported abstinence in response to the question "What kind of birth control are you or your husband or partner using now to keep from getting pregnant?"

Table 4

Characteristics Associated with Nonuse of Contraception Postpartum Compared with Contraceptive Use among Women with Self-Reported Physical Intimate Partner Violence during or within 12 Months before Pregnancy ($n = 5{,}424$), Pregnancy Risk Assessment Monitoring System, 2012–2015[*]

Characteristic	Nonuse of Postpartum Contraception, $n^\dagger$ (%)[‡]	Used Postpartum Contraception, $n^\dagger$ (%)[‡]	Odds of Nonuse of Contraception, Crude OR (95% CI)	Odds of Nonuse of Contraception, Adjusted[§] OR (95% CI)
Total	1,805 (33.1)	3,619 (66.9)		
Age (y)				
19	226 (28.5)	439 (71.5)	0.7 (0.4–1.1)	—
20–25	679 (34.3)	1,454 (65.7)	0.9 (0.6–1.3)	—
26–34	708 (32.4)	1,425 (67.6)	0.8 (0.6–1.2)	—
35	191 (36.9)	301 (63.1)	Ref	—
Race/ethnicity				
Non-Hispanic White	692 (30.8)	1537 (69.2)	Ref	—
Non-Hispanic Black	492 (35.5)	916 (64.5)	1.2 (1.0–1.6)	—
Hispanic	278 (34.2)	602 (65.8)	1.2 (0.8–1.6)	—
Other	332 (38.4)	545 (61.6)	1.4 (1.0–1.9)	—
Education (y)				
<12	381 (31.4)	743 (68.6)	0.9 (0.7–1.2)	—
12	617 (34.1)	1,284 (65.9)	1.0 (0.8–1.3)	—
>12	780 (33.3)	1,545 (66.7)	Ref	—
Marital status				
Married	426 (30.8)	941 (69.2)	Ref	—
Unmarried	1,369 (34.0)	2,659 (66.0)	1.2 (0.9–1.5)	—
Health insurance at time of survey completion				
Private	379 (29.6)	869 (70.4)	Ref	Ref
Medicaid	1,025 (33.2)	2,008 (66.8)	1.2 (0.9–1.5)	1.13 (0.89–1.43)
None	303 (39.8)	532 (60.2)	1.6 (1.1–2.2)	1.53 (1.09–2.14)
Prenatal care initiation				
First trimester	1,248 (31.7)	2,659 (68.3)	Ref	—
Later	448 (36.4)	825 (63.6)	1.2 (1.0–1.5)	—
No prenatal care	35 (32.6)	49 (67.4)	1.0 (0.5–2.3)	—

Characteristic	Nonuse of Postpartum Contraception, $n^{\dagger}$ (%)[‡]	Used Postpartum Contraception, $n^{\dagger}$ (%)[‡]	Odds of Nonuse of Contraception, Crude OR (95% CI)	Odds of Nonuse of Contraception, Adjusted[§] OR (95% CI)
Smoking during last 3 months of pregnancy				
Yes	589 (31.7)	1,156 (68.3)	0.9 (0.7–1.2)	—
No	1,187 (33.4)	2,422 (66.6)	Ref	—
Any emotional stressor[‖] during 12 months before delivery				
Yes	827 (33.1)	1,696 (66.9)	1.0 (0.8–1.2)	—
No	973 (33.1)	1,913 (66.9)	Ref	—
Any financial stressor[¶] during 12 months before delivery				
Yes	1,477 (34.1)	2,902 (65.9)	1.3 (1.0–1.6)	—
No	323 (28.9)	706 (71.1)	Ref	—
Any relationship stressor[#] during 12 months before delivery				
Yes	1,530 (33.9)	3,007 (66.1)	1.2 (0.9–1.6)	—
No	269 (29.4)	602 (70.6)	Ref	—
Any traumatic stressor [**] during 12 months before delivery				
Yes	1,115 (35.6)	2,076 (64.4)	1.3 (1.1–1.6)	1.52 (1.08–2.15)
No	683 (29.8)	1,532 (70.2)	Ref	Ref
Preterm birth				
Yes (<37 weeks)	430 (34.3)	822 (65.7)	1.1 (0.8–1.4)	—
No (37 weeks)	1,366 (32.9)	2,787 (67.1)	Ref	—
Depressive symptoms since delivery [††]				
Yes	1,231 (34.8)	2,432 (65.2)	1.3 (1.0–1.6)	—
No	563 (29.3)	1,171 (70.7)	Ref	—
Recent pregnancy intention				
Intended	554 (32.9)	982 (67.1)	Ref	—
Unintended	732 (31.7)	1,684 (68.3)	1.0 (0.8–1.2)	—
Unsure	480 (36.4)	878 (63.6)	1.2 (0.9–1.5)	—

Abbreviations: CI, confidence interval; OR, odds ratio

*
Includes the following sites: Alabama (2014, 2015), Alaska (2012–2015), Arkansas (2012, 2013, 2015), Colorado (2012, 2013, 2015), Connecticut (2014, 2015), Delaware (2012–2015), Georgia (2012, 2013), Hawaii (2012–2015), Illinois (2012–2015), Iowa (2013–2015), Louisiana (2015), Maine (2012–2015), Maryland (2012–2015), Massachusetts (2012–2015), Michigan (2012, 2013, 2015), Minnesota (2012, 2013), Missouri (2012–2015), Nebraska (2012–2015), New Hampshire (2013–2015), New Jersey (2012–2015), New Mexico (2012–2015), New York City (2012–2015), New York State (2013–2015), Ohio (2012, 2014, 2015), Oklahoma (2012–2015), Oregon (2012, 2013, 2015), Pennsylvania (2012–2015), Rhode Island (2012–2014), Tennessee (2012–2015), Texas (2015), Utah (2012–2015), Vermont (2012–2015), Virginia (2015), Washington (2012–2015), West Virginia (2012–2015), Wisconsin (2012–2015), Wyoming (2012–2015)

†
Unweighted sample size

‡
Weighted row percentage

§
Adjusted for age, race/ethnicity, postpartum health insurance, traumatic stress, and depressive symptoms since delivery

‖
Emotional stressors included illness in family, someone close died, or husband/partner away for long time

¶
Financial stressors included moved to new address, husband/partner lost job, I lost job, problem paying bills, or cut in pay

#
Relationship stressors included divorced/separated, argued more than usual, or husband/partner didn't want pregnancy

**
Traumatic stressors included homeless, husband/partner/I went to jail, or someone close had alcohol/drug problem

††
Reported that they always, often, or sometimes "felt down, depressed, or hopeless" or "had little interest or little pleasure in doing things."