

Racial/Ethnic Differences in Women's Experiences of Reproductive Coercion, Intimate Partner Violence, and Unintended Pregnancy

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Abstract

Objective: To explore racial/ethnic differences in reproductive coercion (RC), intimate partner violence (IPV), and unintended pregnancy (UIP).

Materials and Methods: We analyzed cross-sectional, baseline data from an intervention that was conducted between August 2008 and March 2009 in five family planning clinics in the San Francisco, California area, to examine the association of race/ethnicity with RC, IPV, and UIP among female patients aged 16–29 ($n = 1234$).

Results: RC was significantly associated with race/ethnicity, $p < 0.001$, [prevalence estimates: Black (37.1%), multiracial (29.2%), White (18.0%), Hispanic/Latina (24.0%), and Asian/Pacific Islander/other (API/other) (18.4%)]. Race/ethnicity was not associated with IPV. UIP was more prevalent among Black (50.3%) and multiracial (47.2%) women, with an overall range of 37.1%–50.3% among all racial/ethnic groups ($p < 0.001$). In adjusted analyses, factors associated with UIP were RC [adjusted odds ratio (AOR) = 1.59, 95% confidence interval (95% CI) = 1.26–2.01] and Black (AOR = 1.63, 95% CI = 1.02–2.60) and API/other (AOR = 1.41, 95% CI = 1.15–1.73) race/ethnicity, which remained significant in the presence of RC. Race-stratified models revealed that RC increased odds of UIP for White (AOR = 2.06, 95% CI = 1.45–2.93) and Black women (AOR = 1.72, 95% CI = 1.14–2.60).

Conclusions: Black and multiracial women seeking care in family planning clinics have a disproportionately high prevalence of RC and UIP. RC may partially explain differences in UIP prevalence, with the effect of race/ethnicity slightly attenuated in RC-adjusted models. However, the impact of RC on risk for UIP was similar for White and Black women. Findings from this study support the need to understand and prevent RC, particularly among women of color. Results are foundational in understanding disparities in RC and UIP that may have implications for refinement of clinical care.

Keywords: intimate partner violence, health disparities, unintended pregnancy, reproductive coercion, race/ethnicity

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Introduction

APPROXIMATELY 45% OF ALL pregnancies in the United States are unintended.¹ Unintended pregnancies (UIP) influence maternal and child health¹⁻³ and are associated with lack or delay of prenatal care, maternal anxiety and depression, poor birth outcomes, and negative impacts on child development.³ These effects are amplified among young mothers.⁴ Nationally, UIP is the most prevalent among Black (64%) and Hispanic/Latina (50%) women,^{1,5,6} yet the reasons underlying this racial/ethnic disparity remain elusive.⁴

Racial/ethnic disparities in UIP persist, despite an overall reduction in UIPs in recent years and improvements in women's health policies that increase access to contraception.^{1,4,6-11} The socio-ecological model is a useful framework to understand the multifactorial nature of UIP risk factors at the individual, interpersonal, community, and societal levels that may contribute to racial/ethnic disparities in intimate partner violence (IPV).

At the individual level, contraception use/adherence, age, and past sexual experiences influence the risk of UIP.^{12,13} Specifically, in a nationally representative sample, Black and Hispanic/Latina women were relatively more likely to report early onset of sexual intercourse (before age 13), having more than four sexual partners in their lifetime, and failure to use contraception during their previous sexual encounter.¹⁴

These differences may be impacted by varying attitudes and practices regarding sexuality and family planning based on cultural norms shaped by and reinforced within families and communities.¹⁵⁻¹⁷ For instance, Rocca et al.¹⁸ reported significant differences in the perception of childbearing between racial/ethnic groups, with childbearing being perceived as more favorable among Asian/Pacific Islander (API) women and unfavorable among White women relative to Black women.¹⁸ Also, pregnancy intention and types of contraception used have been reported to vary between racial/ethnic groups and based on level of education and income.^{15,19,20}

At the societal level, women who experience moderate to high levels of social discrimination are more likely to have a UIP.²¹ Racial discrimination is significantly associated with an increase in risk-taking,²² including risky sexual behaviors (e.g., unprotected sex, transactional sex, and concurrent sex partners).²³ Additional socio-structural predictors of UIP include country of origin, access to care, educational attainment, and social standing.¹⁶

Kim et al.⁹ conducted a decomposition analysis using the National Survey of Family Growth and found that characteristics including age, relationship status, insurance type, and education explained 51% of the differences in UIP among Black and White women and 73% of the differences in UIP among Hispanic and White women. These findings suggest that a large percentage of racial/ethnic disparity in UIP is unexplained and potential race-based mechanisms that underlie UIP have yet to be clearly defined. Although several studies have reported risk factors for UIP among the socio-ecological strata, one important gap is our understanding of the impact of interpersonal risk factors for UIP, namely, the influence of male partners in the context of race/ethnicity.

IPV has long been associated with risk for UIP.^{24,25} In addition, emerging research has identified the role of behaviors of male partners in increasing women's odds of UIP.²⁶⁻²⁸ Reproductive coercion (RC) is one such mecha-

nism linking violence within intimate relationships and UIP. RC is a phenomenon that involves pregnancy coercion (e.g., using threats to promote a pregnancy) and active manipulation of condoms and hormonal contraception to promote a pregnancy (e.g., breaking condoms on purpose, flushing birth control pills down the toilet).^{29,30} RC can occur both in the context of IPV and in relationships where physical or sexual IPV is absent. A study of predominately White women aged 16-29 years old at 24 family planning clinics in Western Pennsylvania found that those who reported recent (past 3 months) experiences of RC and IPV were twice as likely to report a UIP compared with those without RC or IPV exposure. Odds of UIP were also elevated among women who reported only RC or IPV (but not both).³¹ In a separate study using the same sample, Jones et al.²⁸ found that condom negotiation self-efficacy mediated the relationship between RC and past-year UIP among the young adult population (ages 20-24 years). In another study of women aged 18 or older, married or cohabitating Latina and Asian women, only those who experienced IPV, were twice as likely to experience a UIP relative to women who were not exposed to IPV.³² Despite emerging work on the impact of RC on UIP, studies to date have not assessed the combined impact of race/ethnicity and RC/IPV on risk for UIP.

The current study, which addresses the aforementioned gap, focuses on the interpersonal level of the socio-ecological framework and recognizes the complex influences across multiple levels that contribute to risk of UIP.³³ This study examines associations among RC, IPV, and UIP by self-reported race/ethnicity among a sample of young women. To our knowledge, this is the first quantitative presentation of differences in RC and its contribution to UIP by race/ethnicity. This article examines (1) the prevalence of RC, IPV, and UIP with regard to race/ethnicity; (2) the effect of race/ethnicity, RC, and IPV as coexperiences on risk for UIP; (3) and the race-specific effects of RC on UIP risk.

Materials and Methods

Sample

Data were drawn from the baseline survey of a longitudinal cluster-randomized trial of a clinical intervention to address RC/IPV and reduce UIP.²⁶ Participants were English- or Spanish-speaking women aged 16-29 years seeking services at five freestanding family planning clinics located in low-income neighborhoods in the San Francisco, California area. The research staff prescreened all women who entered the clinics for age eligibility. Qualifying patients ($n = 1319$, 89% response rate) provided informed consent and completed the survey via Audio Computer-Assisted Self Interview software (ACASI) in a private area of the clinic. Parental permission was waived for participants less than the age of 18, as all women were receiving confidential services. The present study was approved by the Institutional Review Boards at the University of California Davis and the University of Pittsburgh.

Measures

Race/ethnicity was self-reported by using the following categories: Non-Hispanic White (White); Non-Hispanic

TABLE 1. DEMOGRAPHIC CHARACTERISTICS OF THE STUDY POPULATION AND PREVALENCE OF REPRODUCTIVE COERCION, INTIMATE PARTNER VIOLENCE, AND UNINTENDED PREGNANCY BY RACE/ETHNICITY

| | Total sample n (%) | White n (%) | Black n (%) | Hispanic/Latina n (%) | Multiracial n (%) | API/other n (%) | p |
|--------------------------------|-----------------------|----------------|----------------|--------------------------|----------------------|--------------------|--------|
| Total | 1234 (100.0) | 283 (22.9) | 342 (27.7) | 362 (29.3) | 89 (7.2) | 158 (12.8) | — |
| Unintended pregnancy | | | | | | | |
| Yes | 509 (41.3) | 105 (37.1) | 172 (50.3) | 126 (34.8) | 42 (47.2) | 64 (40.5) | <0.001 |
| No | 725 (58.8) | 178 (62.9) | 170 (49.7) | 236 (65.2) | 47 (52.8) | 94 (59.5) | |
| Reproductive coercion | | | | | | | |
| Yes | 320 (25.9) | 51 (18.0) | 127 (37.1) | 87 (24.0) | 26 (29.2) | 29 (18.4) | <0.001 |
| No | 914 (74.1) | 232 (82.0) | 215 (62.9) | 275 (76.0) | 63 (70.8) | 129 (81.7) | |
| Intimate partner violence | | | | | | | |
| Yes | 666 (54.0) | 161 (56.9) | 187 (54.7) | 183 (50.6) | 57 (64.0) | 78 (49.4) | 0.102 |
| No | 568 (46.0) | 122 (43.1) | 155 (45.3) | 179 (49.5) | 32 (36.0) | 80 (50.6) | |
| Age, years | | | | | | | |
| 16–20 | 531 (43.0) | 113 (39.9) | 138 (40.4) | 179 (49.5) | 33 (37.1) | 68 (43.0) | 0.134 |
| 21–24 | 412 (33.4) | 99 (35.0) | 117 (34.2) | 103 (28.5) | 33 (37.1) | 60 (38.0) | |
| 25–29 | 291 (23.6) | 71 (25.1) | 87 (25.4) | 80 (22.1) | 23 (25.8) | 30 (19.0) | |
| Relationship status | | | | | | | |
| Single/dating | 395 (32.0) | 81 (28.6) | 169 (49.4) | 85 (23.6) | 25 (28.1) | 35 (22.2) | <0.001 |
| Serious relationship | 570 (46.2) | 141 (49.8) | 136 (39.8) | 154 (42.7) | 44 (49.4) | 95 (60.1) | |
| Married/cohabitating | 235 (19.1) | 48 (17.0) | 32 (9.4) | 113 (31.3) | 18 (20.2) | 24 (15.2) | |
| Divorced/widowed | 33 (2.7) | 13 (4.6) | 5 (1.5) | 9 (2.5) | 2 (2.3) | 4 (2.5) | |
| Education | | | | | | | |
| Less than or some high school | 267 (21.7) | 61 (21.6) | 63 (18.5) | 114 (31.5) | 13 (14.8) | 16 (10.2) | <0.001 |
| High school graduate | 419 (34.1) | 76 (26.9) | 146 (42.9) | 117 (32.3) | 25 (28.4) | 55 (35.0) | |
| Some college | 409 (33.3) | 109 (38.5) | 93 (27.4) | 105 (29.0) | 41 (46.6) | 61 (38.9) | |
| College graduate | 135 (11.0) | 37 (13.1) | 38 (11.2) | 26 (7.2) | 9 (10.2) | 25 (15.9) | |
| Country of origin | | | | | | | |
| Born outside the United States | 191 (15.5) | 6 (2.1) | 4 (1.2) | 133 (36.8) | 3 (3.4) | 45 (28.7) | <0.001 |
| U.S. born | 1040 (84.5) | 277 (97.9) | 338 (98.8) | 228 (63.2) | 85 (96.6) | 112 (71.3) | |

Column percentages. Due to rounding, some columns \neq 100%.
API, Asian/Pacific Islander.

Black (Black); Hispanic/Latina; multiracial; and Asian, Native Hawaiian or other Pacific Islander, American Indian or Alaskan Native, and other (API/other). Additional demographic characteristics included age, relationship status, education, and country of origin (Table 1).

The primary outcome, UIP, was measured by using the question “How many times have you been pregnant when you didn’t want to be?” and assessed on a categorical scale ranging from “never” to “10 or more times.”²⁶ Responses greater than “zero” were coded as having had a UIP.

RC was measured by using 11 previously developed items to assess ever having experienced pregnancy coercion (*e.g.*, threatening to leave if she did not get pregnant) and/or birth control sabotage (*e.g.*, purposely breaking the condom).^{26,34} Responses were dichotomized into “yes” (participant reported experiencing at least one indicator of RC) and “no” (participant did not report experiencing RC in her lifetime) (Cronbach’s $\alpha = 0.76$).

Physical and sexual violence occurring in the context of “your sexual and dating relationships”²⁶ was assessed by using modified items from validated measures.^{35,36} Specifically, participants were asked about experiencing physical harm and pressure to have sex, both with and without the use of force or threats. Participants who affirmed at least one of four questions regarding lifetime exposure to

physical or sexual IPV were characterized as having a history of IPV.

Analysis

Participants with missing information on race ($n = 3$), RC ($n = 13$), IPV ($n = 3$), or UIP ($n = 3$) were excluded from our sample, as were 65 women who reported never having sex with a man and thus not at risk of UIP, resulting in a final sample size of 1234.

We calculated the lifetime prevalence estimates for UIP, RC, and IPV by race/ethnicity and tested for potential differences in the demographic characteristics, RC, IPV, and UIP by race/ethnicity using chi-square analyses (Table 1). We then constructed separate logistic regression models to assess crude differences in experiences of RC, IPV, and UIP, by race/ethnicity (Table 2). We used a series of logistic regression models to assess the effects of race/ethnicity on the risk of UIP, with adjustments for age, education, relationship status, and country of origin. Subsequently, we added RC, and the final model included both RC and IPV (Table 3). Finally, we tested the race-specific effects of RC on the risk of UIP by race/ethnicity, comparing women with exposure to RC to non-exposed women in models stratified by race/ethnicity (Table 4). The potential for multicollinearity was

TABLE 2. CRUDE ASSOCIATIONS AND COLUMN PERCENTAGES OF UNINTENDED PREGNANCY, REPRODUCTIVE COERCION, AND INTIMATE PARTNER VIOLENCE ACROSS RACE/ETHNICITY AND OTHER SOCIODEMOGRAPHIC VARIABLES, N=1234

| Variable | Unintended pregnancy | | | Reproductive coercion | | | Intimate partner violence | | |
|-----------------|----------------------|-------------|------------------|-----------------------|-------------|------------------|---------------------------|------|-----------|
| | n | OR | 95% CI | n | OR | 95% CI | n | OR | 95% CI |
| Race/ethnicity | | | | | | | | | |
| White | 105 | ref | — | 51 | ref | — | 161 | ref | — |
| Black | 172 | 1.72 | 1.20–2.45 | 127 | 2.69 | 1.90–3.79 | 187 | 0.91 | 0.52–1.60 |
| Hispanic/Latina | 126 | 0.91 | 0.56–1.47 | 87 | 1.44 | 0.92–2.26 | 183 | 0.78 | 0.60–1.01 |
| Multiracial | 42 | 1.52 | 0.84–2.72 | 26 | 1.88 | 1.46–2.41 | 57 | 1.35 | 0.77–2.37 |
| API/other | 64 | 1.15 | 0.90–1.48 | 29 | 1.02 | 0.59–1.77 | 78 | 0.74 | 0.51–1.07 |

Bold font indicates *p*-value <0.05.
95% CI, 95% confidence interval; OR, odds ratio.

assessed, and a sensitivity analysis confirmed that the results were robust to small amounts of missing data. We considered a *p*-value <0.05 statistically significant. All analyses were conducted in SAS, version 9.4, by using the survey data analysis procedures for clustered data to account for clinic effects.³⁷

Results

Sample characteristics

The lifetime prevalence of RC (range: 18.0%–37.1%) and UIP (range: 34.8%–50.3%) was significantly different across the racial/ethnic groups (*p*<0.001) and more prevalent among Black and multiracial women. Exposure to IPV ranged from 49.4% to 64.0% and was the highest in the multiracial group, but it did not differ significantly by race/ethnicity (Table 1). The majority of participants were non-White (77%), between the ages of 16 and 24 (76%), and born in the United States (84.5%). Sociodemographic characteristics that varied by race/ethnicity included relationship status, education, and country of origin (*p*<0.001) (Table 1).

Reproductive coercion

In the total sample, one in four women reported ever experiencing RC (Table 1); being told not to use birth control

(13.1%) and removal of condoms during sex to facilitate pregnancy (12.2%) were the most commonly reported forms of RC (data not shown). Black and multiracial women had significantly higher odds of experiencing RC in an unadjusted analysis [odds ratio (OR)_{Black} = 2.69, 95% confidence interval (95% CI) = 1.90–3.79 and OR_{multiracial} = 1.88, 95% CI = 1.46–2.41] relative to White women (Table 2).

Intimate partner violence

Approximately half of the women from all racial/ethnic groups reported experiencing IPV in their lifetime. Exposure to IPV was the most prevalent among multiracial (64.0%) and White women (56.9%) (Table 1). Experiencing IPV also varied by age, relationship status, and country of origin (not shown).

Reproductive coercion, intimate partner violence, and unintended pregnancy

Adjusting for age, education, relationship status, and country of origin, Black women [adjusted OR (AOR) = 1.76, 95% CI = 1.09–2.82] and API/other (AOR = 1.42, 95% CI = 1.13–1.79) were significantly more likely than White women to report a UIP (Table 3, Model 1). When RC was included in the model, the effect of Black race on UIP was

TABLE 3. LOGISTIC REGRESSION MODELS ASSESSING ASSOCIATIONS OF RACE, REPRODUCTIVE COERCION, AND INTIMATE PARTNER VIOLENCE WITH UNINTENDED PREGNANCY

| Variable | Model 1, AOR (95% CI) | Model 2, AOR (95% CI) | Model 3, AOR (95% CI) |
|---------------------------|-------------------------|-------------------------|-------------------------|
| Race/ethnicity | | | |
| White (n = 283) | ref | ref | ref |
| Black (n = 342) | 1.76 (1.09–2.82) | 1.63 (1.02–2.60) | 1.67 (0.99–2.80) |
| Hispanic/Latina (n = 361) | 1.12 (0.67–1.86) | 1.08 (0.65–1.79) | 1.09 (0.66–1.82) |
| Multiracial (n = 89) | 1.44 (0.85–2.45) | 1.37 (0.79–2.38) | 1.35 (0.78–2.34) |
| API/other (n = 158) | 1.42 (1.13–1.79) | 1.41 (1.15–1.73) | 1.43 (1.13–1.80) |
| Reproductive coercion | | | |
| No (n = 914) | — | ref | ref |
| Yes (n = 320) | — | 1.59 (1.26–2.01) | 1.47 (1.05–2.05) |
| Intimate partner violence | | | |
| No (n = 568) | — | — | ref |
| Yes (n = 666) | — | — | 1.38 (0.77–2.48) |

Model 1: Adjusted for age, education, relationship status, and country of origin; Model 2: Model 1 + reproductive coercion; and Model 3: Model 2 + intimate partner violence.
Bold font indicates *p*-value <0.05.
AOR, adjusted odds ratio.

TABLE 4. RACE-SPECIFIC EFFECTS OF REPRODUCTIVE COERCION ON RISK FOR UNINTENDED PREGNANCY

| <i>Race/ethnicity (RC versus no RC within each race/ethnicity)</i> | <i>AOR (95% CI)^a</i> |
|--|---------------------------------|
| White | 2.06 (1.45–2.93) |
| Black | 1.72 (1.14–2.60) |
| Hispanic/Latina | 0.98 (0.47–2.06) |
| Multiracial | 1.83 (0.56–5.92) |
| API/other | 1.20 (0.67–2.14) |

^aAdjusted for age, education, relationship status, country of origin, and IPV.

Bold font indicates p -value < 0.05.

IPV, intimate partner violence; RC, reproductive coercion.

slightly impacted but remained statistically significant (AOR_{Black} = 1.63, 95% CI = 1.02–2.60) (Table 3, Model 2), and RC was significantly associated with UIP (AOR = 1.59, 95% CI = 1.26–2.01). However, when IPV was added to the model, the effect of Black race on UIP was no longer significant (AOR_{Black} = 1.67, 95% CI = 0.99–2.80), nor was IPV (AOR = 1.38, 95% CI = 0.77–2.48) (Table 3, Model 3). API/other women remained significantly more likely than White women to report UIP when adjusting for RC (AOR_{API/other} = 1.41, 95% CI = 1.15–1.73) (Table 3, Model 2) and when adjusting for RC and IPV (AOR = 1.43, 95% CI = 1.13–1.80) (Table 3, Model 3). RC was associated with UIP in demographic-adjusted models (AOR = 1.59, 95% CI = 1.26–2.01) (Table 3, Model 2) and after controlling for IPV (AOR = 1.47, 95% CI = 1.05–2.05) (Table 3, Model 3).

We calculated race-specific effects of RC on UIP. Both White (AOR = 2.06, 95% CI = 1.45–2.93) and Black (AOR = 1.72, 95% CI = 1.14–2.60) women who experienced RC were significantly more likely to have a UIP than White and Black women who had not experienced RC, respectively (Table 4). No race-specific RC effects on UIP were found for Hispanic/Latina, multiracial, or API/other women.

Discussion

This is the first quantitative study to document that Black (37.1%) and multiracial (29.0%) women disproportionately experience RC by male partners. Although previous studies^{26,31} have illustrated that women who experience RC are more likely to report UIPs, current findings suggest that this may be the case primarily for White and Black women. We found that the relative increase in odds of UIP given RC was similar for White and Black women, suggesting several potential scenarios: (1) RC may be driving the disparities in UIP among Black and White women, given the higher prevalence of RC and UIP reported by Black women; and (2) RC is likely only one driver of disparities in UIP seen by race/ethnicity, as we hypothesized that the odds of UIP given RC would be elevated among Black women compared with White women.

In addition to findings among Black and White women, multiracial women were nearly twice as likely as White women to experience RC. Although this exposure did not translate into a statistically significant increased risk of UIP in race-specific models, the overall sample size within this category was relatively small, which may have compromised

statistical power. Elevated, though non-significant, odds of RC among multiracial women warrant further investigation to understand experiences of abuse among women of color and how they impact their reproductive health. A study by Jackson et al.³⁸ reports a difference in contraception preference based on race/ethnicity, with Black, Hispanic, and API women favoring features of contraceptive methods that happen to have lower efficacy and may allow for greater susceptibility to partner manipulation or refusal of contraception (*i.e.*, RC). These features included a contraceptive method that they had the ability to stop at any time, was only needed during intercourse, provided protection against sexually transmitted infections, and did not interfere with their menstruation cycle.³⁸ In addition to partner influence on UIP through contraception manipulation or refusal, marital status is associated with increased risk of UIP in certain minority populations. Namely, Masho et al.³⁹ reported that married White, Hispanic, Asian, and Hawaiian women who experienced IPV had significantly greater odds of a UIP relative to women who were not exposed to IPV—this association was the most pronounced among Hawaiian women, who were nearly five times the odds of experiencing a UIP due to exposure to IPV.³⁹ These findings may help to explain the persisting and elevated odds of UIP among API/other women in the present study, particularly after the addition of IPV into the model. IPV attenuated the risk of UIP among Black women, yet the significant risk for UIP based on exposure to RC and IPV persisted among API/other women. In this study, we lacked sufficient numbers of Asian, Native Hawaiian or other Pacific Islander, American Indian or Alaskan Native, and other women for race/ethnicity-specific analyses, thus combining them into one group. Future studies should focus on differences within these sub-groups to fully understand factors that drive risk for UIP. Overall, the racial/ethnic differences documented in this study call for deeper exploration of how RC, IPV, and UIP are defined within various cultural contexts as well as possible drivers of health inequalities related to RC, IPV, and UIP.

The theoretical framework that guides this study acknowledges that health disparities are often linked to racial/ethnic experiences, for instance discrimination and segregation, which impact social and sexual networks, limit access to resources, and contribute to chronic stress.^{21,40,41} In this study, self-reported race/ethnicity was a proxy for race/ethnic-based experiences.⁴² The association between race/ethnicity and health is often entangled in socioeconomic status (SES),⁴³ which is not surprising given the racialization of social class.⁴⁴ In a study by Finer and Henshaw,¹⁰ race/ethnicity was documented as a predictor of UIP, despite income level. In an exploration of social standing, an increase in social standing among Black women was not directly related with decreased UIP risk, despite decreases in UIPs among White women of increased social standing.^{12,16} Thus, factors beyond SES such as incarceration, perceived discrimination, and social stress may contribute to women's risk for UIP. In this study, the sample of women reflects a generally lower income population; therefore, the racial/ethnic differences observed are likely due to factors beyond SES. Additional studies are needed to explore the drivers of UIP among racial/ethnic minorities and risk factors for RC and UIP.

A benefit of the present study is that women were all seeking care in family planning clinics. Although access to

care is so often an important driver of health disparities,⁴⁵ that is not the case in this clinic-based study. Participants in this study sought care at family planning clinics known for providing affordable care to both insured and uninsured individuals. These findings underscore the need for comprehensive reproductive and sexual healthcare that recognizes the links between violence and women's health. A recent study by Phillips et al.⁴⁶ reported that women who experience RC are more than twice as likely to participate in risky sexual behaviors such as transactional sex when compared with women who have not experienced RC. Miller et al.⁴⁷ demonstrated the effectiveness of a brief clinical intervention in reducing odds of RC, particularly pregnancy coercion, among women who reported recent experiences of IPV. However, scaling-up of this intervention did not yield a statistically significant reduction in overall RC, with RC reductions noted only among women who experienced more severe RC at baseline.⁴⁸ A greater understanding of socioecological determinants of health is needed to inform health interventions and practices that reduce UIP and associated health concerns such as RC and IPV. The racial/ethnic differences documented in this study call for deeper exploration of potential drivers of health inequalities related to RC, IPV, and UIP and consideration of how these factors may be incorporated into existing interventions.

Limitations

This study is not without limitations. The cross-sectional study design only allows for assessment of associations among lifetime experiences of RC, IPV, and UIP; we were not able to establish temporality. A longitudinal study would bolster our understanding of the associations found. Aside from their known association with experiencing RC, IPV, and UIP, this design did not control directly for potentially confounding variables such as partner characteristics, risky sexual practices, and contraception nonuse not influenced by an intimate partner.^{49–51} Also, the restricted sample, inclusive of women seeking clinical services, may not be generalizable to the general population in other regions of the country. Finally, stigmatized events such as IPV and UIP are often under-reported—we used ACASI to minimize face-to-face interaction during survey completion and reduce social-desirability bias.

Conclusion and implications for women's healthcare

This study is the first to demonstrate the disproportionate risk for RC among Black women and race-based differences in UIP given RC exposure. Our findings build on theories of race and social ecology that support the influence of race-related experiences in the expression of health disparities such as UIP and RC. Understanding factors that contribute to marked differences in the prevalence of RC by race/ethnicity should be a focus of research. Future studies should consider the influence of socio-structural factors (*i.e.*, discrimination, stress, relationships, poverty, incarceration, and perceptions of upward mobility) as potential drivers of RC and UIP, as well as their impact on associated health concerns such as HIV and other sexually transmitted infections. Also, an exploration of the perspective of male intimate partners in the context of IPV, RC, and pregnancy

intention, which is currently lacking in the literature, would strengthen our understanding of these disparities.

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