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The Association between Unintended Pregnancy and Violence among Incarcerated Men and Women

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Abstract

Background—In this article, we examine the association between unintended pregnancy and individual and community level indicators of violence in a population of both women and men in the criminal justice system.

Methods—We conducted a cross-sectional survey with 290 women and 306 men in 3 correctional facilities in Kansas City and used logistic regression models to assess relationships between key independent variables and unintended pregnancy.

Findings—In gender-specific logistic regression models, women with a history of intimate partner violence were 2.02 times more likely (CI 1.15, 3.56), and those with a history of sexual abuse before age 16 were 1.23 times more likely (CI 1.02–1.49) to have experienced unintended pregnancy. Men or their family members who were victimized by neighborhood violence were 1.82 times more likely to have experienced unintended pregnancy (CI 1.01, 3.28).

Discussion—These findings suggest the need for gender and community-specific interventions that address the relationship between violence and unintended pregnancy.

Up to 50% of pregnancies in the United States are unintended, that is either mistimed or unwanted (Finer & Henshaw, 2006). These pregnancies are more likely to end in abortion and those that are continued have higher neonatal death rates and more negative maternal outcomes than pregnancies that are planned (Gipson, Koenig, & Hindin, 2008). Negative effects seem to continue beyond delivery, with children from unwanted pregnancies less likely to be breastfed and to have higher levels of illness and less parental involvement and social support in their lives (Barber, Axinn, & Thornton, 1999; Hromi-Fiedler & Perez-Escamilla, 2006; Jensen & Ahlburg, 1999, 2002).

The 12 million women and men who pass through jails and prisons of our country's justice system every year experience a variety of negative reproductive health outcomes, including high rates of cervical cancer for women and sexually transmitted infections for both women and men (Clark & Rich, 2006; Gonzalez et al., 2008; Hale et al., 2009; Kelly, Perelez-

Dieckmann, Cheng & Collins, 2010). One of the few studies to examine unintended pregnancy in this population found that 83.6% of 484 women in a combined prison and jail population had experienced an unintended pregnancy (Clarke et al., 2006). This population also has extensive experience with violence, in the form of high rates of intimate partner violence in their present lives, sexual and physical abuse as children, and community environments in which crime, unemployment, and institutionalized racism are common. However, specific relationships between unintended pregnancy and either personal or community violence in this population have not been extensively explored.

Because jails, as opposed to prisons, have populations from the surrounding areas, they provide an opportunity to work with otherwise difficult-to-reach populations in the community to improve their reproductive health outcomes (Ramaswamy & Freudenberg, 2007). The goal of this secondary data analysis was to understand the relative contributions of individual and community factors to unintended pregnancy for both women and men in the local criminal justice system. We hypothesized that violence on both the individual and community level would be associated with unintended pregnancy and that there would be gender-specific differences in the associations.

THE RELATIONSHIP BETWEEN UNINTENDED PREGNANCY AND VIOLENCE

The association between women's unintended pregnancies and intimate partner violence is well documented around the world. For example, the risk of unintended pregnancy was 3.31 times greater for a sample of 2,167 Peruvian women who had a history of both physical and sexual abuse than for women without this history (Cripe et al., 2008). In New Zealand, 55% of a sample of over 2,000 women who experienced violence reported their pregnancy as unwanted compared to 28% who did not experience violence (Fanslow, Silva, Whitehead, & Robinson, 2008). A national longitudinal study of 526 US adolescent girls who experienced dating violence had a 1.3 times greater chance of having an unintended pregnancy than those who did not have this experience (O'Donnell, Agronick, Duran, Myint & Stueve, 2009). The prevalence of intimate partner violence (IPV) among women seeking abortions ranges from 9.5% to 39.5%, with one study finding that women surveyed at an abortion facility had an almost three time greater probability of experiencing IPV than women at the prenatal clinic in the same facility (25.7% VS. 9.3%, $p = 0.001$; Bourassa & Berube, 2007; Glander, Moore, Michielutte & Parsons, 1998; Saftlas et al., 2010). Population-based studies support this association, with women who experienced IPV 2.5 times more likely to report ever having had an abortion ($p = 0.0001$; Fanslow, et al., 2008).

The association between unintended pregnancy and violence extends beyond IPV. A survey with a population of a large health maintenance organization in San Diego found that women who experienced childhood psychological abuse or who witnessed parental IPV were 1.4 times more likely to have had an unintended first pregnancy (Dietz et al., 1999). This association was confirmed with a survey of a large, random sample of the Swedish population, which found higher rates of unintended pregnancy among 4,781 women who

had experienced child or adolescent sexual abuse than among those who had not experienced abuse (28% vs. 17%, $p = 0.0001$; Steel & Herlitz, 2005).

Less clear is the association between unintended pregnancy and indicators of community violence, and variability exists in these findings. One recent study found that in addition to the association between unintended pregnancy and history of sexual abuse (OR = 1.5; 95% CI 1.11–2.04), violence in previous pregnancy (OR = 1.7, 95% CI, 1.15–2.51), and a high index of spousal abuse score (OR = 1.6; 95% CI 1.32–2.04), the association extended to simply living in a neighborhood in which a woman did not feel safe (OR = 1.28; 95% CI 1.02–1.61; Uscher-Pines & Nelson, 2010). These results mirror those from the international analysis of the Columbian Demographic and Health Survey, which found that living in a neighborhood with high rates of IPV, increased a woman's chance of having an unintended pregnancy by 2.5 fold (Pallitto & O'Campo, 2005). However, a domestic study using a broad, community-level variable of neighborhood deprivation (defined as the percentage of crowded housing, car ownership, unemployed, and rental housing) with statewide data from Florida and Washington found no significant relationship with unintended pregnancy (Cubbin et al., 2008). The rationale for an association between unintended pregnancy and community violence might lie in the impact of community disorganization on individual behaviors. Although not clearly understood from a theoretical perspective for unintended pregnancy, the association between community violence and the intimate behaviors resulting in sexually transmitted infections has been documented and hypothesized to be a function of the impact of loosened social controls on individual behaviors (Cohen et al., 2000).

Finally, researchers have largely overlooked analyses of men whose partners have had an unintended pregnancy. Although information about demographics, couples' behaviors, and risk-taking strategies related to abortion have been documented, less is known about individual and community-level factors associated with men in this population (Koran & Mawn, 2010; Luker, 1976). A survey related to this topic conducted with 283 men from an urban community health center population found acknowledgment that IPV perpetration was common and associated with sexual risk-taking, minimal condom use, and having fathered three or more children; however, specific attention to pregnancy intention was not included in the analysis (Raj et al., 2006).

WHAT IS THE LINK BETWEEN UNINTENDED PREGNANCIES AND VIOLENCE?

A theoretical understanding of the intergenerational nature of childhood sexual/physical abuse and intimate partner violence has been suggested by Renner and Slack (2006) and explanatory mechanisms for the association between community level factors and intimate partner violence explored by Cunradi (2010). However, minimal theoretical work is available to provide a conceptual pathway between personal and/or community violence and unintended pregnancy. To begin to address this gap, we propose an adaptation for unintended pregnancy of the broadly inclusive conceptual framework for interpersonal violence proposed by Bell and Naugle (2008). In this framework, motivating factors (desire for pregnancy, desire for pregnancy prevention), behavioral repertoire (ability to access and

effectively use a family planning method, both of which are influenced by attitudes about family planning), antecedents (individual level factors such as gender, socio-economic status, personal history of violence), and environmental context (community levels factors such as local resources, neighborhood stability, neighborhood violence) will all have an impact on the occurrence of unintended pregnancy. The impact of both motivating factors and behavioral repertoire on contraceptive use have been recently explored by Kaye, Suellentrop, and Sloup (2009) in their publication, *The Fog Zone*, which suggests ambivalence about contraceptive use to be a strong mechanism for unintended pregnancy. The rationale for inclusion of antecedent factors is a function of rates of unintended pregnancy five times greater for poor women than for women with moderate to high incomes (Finer & Zolna, 2011). In addition, empowerment or lack thereof, has been suggested as the potential link between personal experiences of violence, whether as a child or in an adult relationship (Lee-Rife, 2010). Although some evidence exists to specifically link the environmental context to unintended pregnancy (Cubbin et al., 2008; Pallitto & Campo, 2005), additional work is needed to document the relative contribution of this pathway. As with the original model, this proposed framework provides researchers with the ability to understand unintended pregnancy from an individual or a larger group perspective by selectively analyzing the respective contributions of variables at different levels. This study provides an initial empirical test of the framework by examining the association between unintended pregnancy and violence at both the individual and the community level.

METHODS

We conducted a secondary data analysis of a 2010 cross-sectional study of a convenience sample of 290 women and 306 men in three urban jails in the greater Kansas City metropolitan area (with one facility on the Missouri side of the state line two on the Kansas side). These interviews were part of a larger ongoing study of how women and men in these jails use and gain access to health care resources.

Participants were recruited over the course of the study period with flyers posted at the facility and through general announcements in each housing unit by the special programs coordinator. On any given day, about 1,900 women and men were housed in the three facilities. Recruitment of the convenience sample occurred on an ongoing basis over the 6-month data collection period, depending on the number of women and men willing and able (e.g., not making a court appearance) to participate and on the interviewers' schedules (we completed between five and 25 interviews on any given day). The sample was representative of women and men in both of these jails, based on age, race, and ethnic characteristics of women and men in these facilities.

Interviewers read a standardized recruitment script and consent form to each potential participant in English. After the women and men signed the informed consent document and agreed to participate in the study, members of the research team administered the face-to-face survey in English. All interviews were conducted in semiprivate program spaces at the jail, with interviewer and participant on either side of a table. A correctional officer or the special programs coordinator stood about 20 feet away during the interviews. Each participant was given a \$5 credit to the facility commissary as compensation for

participation. The University of Kansas City—Missouri Institutional Review Board approved the protocol for this study with a Memorandum of Agreement from the University of Kansas Medical Center's Institutional Review Board.

Measures

The dependent variable of unintended pregnancy was assessed by one question, “Did you [for women or any partner for men] ever have a pregnancy that was unplanned, unintended, or a surprise?” A definition of unintended pregnancy that more precisely captures the essence and consequences of unintended pregnancy may be helpful, but has not been agreed upon by researchers or used to date (Campbell & Mosher, 2000; Trussell, Schwarz, & Guthrie, 2010). Women's perceptions about intention have also been documented to change during and after a pregnancy (Gipson, 2008; Santelli, et al., 2003). Also, although some researchers have used several items to distinguish between these constructs, their analyses have generally combined the categories into one outcome variable because of sample size limitations (Gipson, et al., 2008). Therefore, we considered the wording of the one item to be adequate for this initial, exploratory analysis.

Antecedents or independent variables at the individual level included:

- Demographics of age, race/ethnicity; education level; employment status prior to incarceration; receipt of public benefits prior to incarceration; housing status, e.g. unstably housed; if living with children under age 18 prior to incarceration; marital status as single; health insurance status; and having had a primary care doctor prior to incarceration;
- Health history questions relevant to unintended pregnancy (lifetime history of sexually transmitted infections, having exchanged sex for money/drugs in their lifetime);
- Self-reported incarceration history, specifically number of months spent in jail or prison in one's lifetime;
- Past-year abuse history, including whether participants had been injured in the year prior to incarceration because of violence. We also assessed intimate partner violence in the 1 year prior to incarceration by asking participants if a sex partner had physically hurt, insulted or screamed at the participant on a regular basis or fairly often (adapted from verbal HITS Scale [Hurt, Insulted, Threatened with harm, and Screamed]; Sherin, Sinacore, Li, Zitter, & Shakil, 1998). Because we condensed all types of intimate partner violence (physical, insulting, screaming) into one question and treated this as a dichotomous variable, the psychometric properties of this question are unknown;
- Abuse history before age 16—we documented frequency of sexual abuse before age 16 with the following question: “Did anyone ever do any of the following things when you didn't want them to: touch the private parts of your body, make you touch their private parts, threaten or try to have sex with you, or sexually force themselves on you? Did it happen 0 times, 1–2 times, 3–5, 6–10, or more than ten times?” (Childhood Experiences of Violence Questionnaire; Walsh,

MacMillan, Trocme, Jamieson & Boyle, 2008). To assess physical abuse before age 16 years, we asked participants to answer three questions about how often they had been hit, pushed or shoved, or kicked or punched (Childhood Experiences of Violence Questionnaire; Walsh et al., 2008; Cronbach's $\alpha = 0.76$ for sexual abuse and physical abuse questions). Because frequency varied across physical and sexual abuse questions, we coded any type of abuse as answering 1–2 or more times to any of these physical and sexual abuse questions. To assess sexual abuse separately (a variable that has been associated with unintended pregnancy in previous studies), we examined sexual abuse prior to age 16 both as a dichotomous variable and assessed its frequency.

Environmental context variables included:

- Fear of neighborhood violence prior to incarceration, which was assessed with the following question: “In the neighborhood where you lived before being incarcerated, were you afraid you would be hurt by violence?” Participants reported whether they were afraid all the time, most of the time, a little bit of the time, or none of the time (Wright et al., 2004).
- Level of perceived neighborhood violence, assessed by five items, asking if, in their neighborhood in the 6 months prior to each person's incarceration, there was a fight in which a weapon was used, a violent argument between neighbors or friends, a gang fight, a robbery or mugging, or a murder (Adult Violence Score, originally adapted from Perceived Neighborhood Violence Scale; Sampson, Raudenbush, & Earls, 1997). We computed a summary neighborhood violence score across types of violence with a possible range of 0–5, with higher scores indicating greater perceived level of neighborhood violence (Cronbach's $\alpha = 0.82$).
- Knowledge of neighborhood violence, assessed with the five items about neighborhood violence in the 6 months prior to each person's incarceration (described previously), but recoded as a yes/no question.
- Victimization by neighborhood violence, which was assessed with the question, “In the neighborhood where you lived before being incarcerated, did anyone ever use violence, such as a fight (hitting, pushing, and shoving), against you or any member of your family?” (Sampson et al. 1997; Wright et al., 2004).
- Number of months lived in one's neighborhood prior to incarceration

Analysis

For all study variables, we computed group size and percentage, or means and standard deviations where appropriate. We first conducted a series of bivariate analyses using Chi-square tests to assess the relationship between independent and dependent variables. Then, because one of the goals of the study was to assess gender differences in predictors of unintended pregnancy, we also compared women and men on all study variables, and with the dependent variable of interest, unintended pregnancy. To assess the relationship between key independent variables and unintended pregnancy, we ran three logistic regression

models using SPSS version 18 (one for women and men together, one for women separately, and one for men separately). We assessed the odds ratios (the exponentiated β coefficients), and confidence intervals to assess statistical significance of the models (Morgan & Teachman, 1998). Variables that measured socio-demographic and life circumstance characteristics, background sexual and reproductive health history, incarceration history, and time lived in one's neighborhood that were associated with dependent variables at the p 0.05 level were included as covariates in logistic regression analysis. We presented both unadjusted and adjusted models in the final analysis.

RESULTS

The 596 participants (290 women and 306 men) had an average age of 34.7 years ($SD = 10.8$); 418 (70.5%) were high school graduates or had GEDs, 302 (51.7%) were employed and 280 (47.9%) lived with a child or adolescent less than age 18 at the time of their incarceration. Participants had spent an average of 33.2 months in jail in their lifetimes ($SD = 47.0$); 84 (14.6%) had exchanged sex for drugs or money. Fully 63.1% (376) of participants acknowledged physical or sexual abuse before age 16, and 36.3% (192) acknowledged IPV in the previous year; 134 (23.1%) had themselves or a family member be the recipient of community violence. Despite more than half (316/53%) of participants acknowledging the occurrence of violence in their community, there was a low perception of community violence (average score of 1.3 out of 5). These and other descriptors are shown in Table 1.

In the bivariate analysis results shown in Table 2 for the whole sample, unintended pregnancy ($n = 294/591$, 49.7%) was associated with age, White race, living with a child less than 18 years of age, ever having had an STI diagnosis, experiencing IPV in the year prior to incarceration, having a history of sexual abuse before age 16, hearing about violence in one's neighborhood, and being a victim of or having a family member be a victim of community violence were statistically associated with having had an unintended pregnancy ($p < 0.05$). When looking at only women who had had an unintended pregnancy ($n = 155/288$, 53.8%), all of the variables for the total sample were associated with a history of unintended pregnancy, with the exception of hearing about violence in one's neighborhood. When looking at men who had experienced an unintended pregnancy ($n = 139/303$, 45.9%), the following variables were associated with unintended pregnancy history: age, living with a child less than 18 years of age, ever exchanging sex for drugs or money, having a violent injury in the 1 year prior to incarceration, hearing about neighborhood violence prior to incarceration, and having been or having a family member who was a victim of neighborhood violence.

In adjusted OR, after controlling for use of reproductive health services in the past year, participants who had experienced IPV in the year prior to incarceration (OR = 1.55, CI 1.03, 2.33), who had a history of sexual abuse (OR = 1.17, CI 1.00–1.38), or who were victimized/had a family member victimized by neighborhood violence (OR = 1.84, CI 1.19, 2.83) were more likely to have experienced an unintended pregnancy. In gender-specific models, women with a history of IPV were 2.02 times (CI = 1.15–3.56), or who had a history of sexual abuse before age 16 were 1.23 times (CI = 1.02–1.49), more likely to have

experienced unintended pregnancy. For men, only being victimized/having a family member victimized by neighborhood violence (OR = 1.82, CI = 1.01, 3.28) was associated with unintended pregnancy. These results are shown in Table 3.

DISCUSSION

In this study, we found that for women, unintended pregnancy was associated with recent IPV and a history of childhood sexual abuse. For men, unintended pregnancy was associated with being victimized or having a family member victimized by neighborhood violence. A possible reason for the greater impact of community violence on the personal behaviors related to unintended pregnancy might lie in the participation in street life found among young men, compared to young women from the disadvantaged communities from which jail populations are disproportionately drawn (Anderson, 2000). Men in these communities, whether their values reflect those of the street or of the middle class, have more interactions and a greater presence in street activities than do women. This street presence increases the influence of relatively absent social norms, minimal monitoring, and a phenomenon known as social signaling, that is, the viewing of a disordered environment that is not addressed which ultimately leads to an increase in the likelihood of deviant behavior (Wilson & Kelling, 1982).

Although women also engage in street life, their paths to the street are often preceded by a history of victimization, which have different effects (Nurge & Shively, 2008). Indeed, the women in our sample had higher rates than men of intrafamily victimization, either from childhood sexual abuse or partner violence (in our sample, 34.9% vs. 8.3% and 46.4% vs. 25.5% respectively). It is not unreasonable to hypothesize that women must focus considerable energy to address, if not overcome, these histories, which can easily carry a resultant lack of personal empowerment in intimate behaviors, including partner choice and its potential for unintended pregnancy. It is plausible to suggest that the history of victimization that many of the women with criminal justice histories experience, takes precedence over their involvement in street life in its lasting health effects.

Over 15 years ago, the Institute of Medicine reported that little was known about the impact of men's intentions about pregnancies on the outcomes of the pregnancy or on child and family development. This lack of knowledge continues to hold true in terms of both men's associations with unintended pregnancy and the long-term outcomes for the relationships and the children of such pregnancies. This exploratory study provides preliminary data on community level factors that may be associated with unintended pregnancy and a starting place for further research.

Limitations of this study include the sample of the jail populations with which we worked. Because this study drew on a convenience sample of women and men in two Mid-western jails, the experiences of our sample may not be representative of all women and men in US jails. All information was self-reported, a limitation of most research involving current and past violence, as well as unintended pregnancy. In spite of these limitations, we believe that this analysis provides preliminary results about the experiences with both individual and community level violence and unintended pregnancy. Because of the cross-sectional design

of this study, however, we can only describe associations between these variables. However, referring back to the adapted framework suggested in the Introduction of this article, our results do suggest unintended pregnancy to be a function of the individual level antecedents of gender, poverty and personal history of abuse, and the environmental context of neighborhood violence. These relationships between violence and unintended pregnancy in this population of women and men with criminal justice involvement are deserving of future study.

This study provides preliminary results about the gender-specific experiences of violence and unintended pregnancy among the high-risk population of women and men in the criminal justice system. This population is often disconnected from continuous and preventive health care in the community and segregated into violent and poor neighborhoods at home. The association with women in local justice systems has not, to our knowledge, been previously reported and suggests an avenue for intervention research with a high-risk population that may not be reached through traditional clinical pathways. Findings from this study suggest that this population may need gender and community-specific interventions that address both violence and unintended pregnancy.

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TABLE 1

Characteristics of Sample (*N* = 596)

	Sample (<i>N</i> = 596)		Women (<i>N</i> = 290)		Men (<i>N</i> = 306)	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Age—mean (SD)	34.7	(10.8)	33.9	(9.8)	35.5	(11.6)
Race/Ethnicity ¹						
White	244	41.6	123	43.0	121	40.3
Black	249	42.5	116	40.6	133	44.3
Latino	53	9.0	24	8.4	29	9.7
Biracial	19	3.2	9	3.1	10	3.3
Other	21	3.6	14	4.9	7	2.3
High school graduate/GED	418	70.5	202	70.1	216	70.8
Employed prior to incarceration	302	51.7	107	37.7***	195	65.0
Received public benefits before incarceration	226	43.5	133	55.0***	93	33.5
Unstably housed prior to incarceration	50	8.5	30	10.6	20	6.6
Lived with at least one child < 18 before incarceration	280	47.9	141	49.5	139	46.3
Marital status as “single”	431	74.4	202	74.0	229	74.8
Insured prior to incarceration	250	43.0	126	45.2	124	40.9
Lifetime months in jail or prison—mean (SD)	33.2	(47.0)	17.9	(31.3)***	43.0	(54.9)
Ever diagnosed with an STI	94	16.0	58	20.4**	36	12.0
Ever exchanged sex for drug or money	84	14.6	68	24.5***	16	5.4
Had a violent injury in year prior to incarceration	65	11.0	33	11.5	32	10.6
Experienced IPV in year prior to incarceration	192	36.3	127	46.4***	65	25.5
Physical or sexual abuse before age 16	376	63.1	187	64.5	189	61.8
Sexual abuse before age 16	120	20.9	95	34.9***	25	8.3
Fear of neighborhood violence score—mean (SD) ²	1.4	(0.9)	1.5	(0.9)	1.4	(0.9)
Level of perceived neighborhood violence—mean (SD) ³	1.3	(1.6)	1.2	(1.5)	1.3	(1.6)
Hearing about neighborhood violence y/n ⁴	316	53.0	152	52.4	164	53.6
Victim of neighborhood violence (or family member)	134	23.1	61	21.7	73	24.3

	Sample (N = 596)		Women (N = 290)		Men (N = 306)	
	N	%	N	%	N	%
Months in neighborhood prior to incarceration—mean (SD)	92.2	(120.9)	71.9	(108.2)***	110.6	128.8
Ever had an unintended pregnancy	294	49.7	155	53.8*	139	45.9

- ¹ 10 cases had missing race/ethnicity data.
- ² “In the neighborhood where you lived before being incarcerated, were you afraid you would be hurt by violence?” 1 = *None of the time*, 2 = *A little of the time*, 3 = *Most of the time*, 4 = *All of the time*.
- ³ Level of neighborhood violence, High summary score = greater perceived neighborhood violence.
- ⁴ Hearing about any of the following in the last six months (y/no question): violent arguments, robberies, gang activities, murders.
- * *p* 0.05.
- ** *p* 0.01.
- *** *p* 0.001. for comparison of women to men.

TABLE 2

Characteristics of Sample by History of Unintended Pregnancy

	History of Unintended Pregnancy (N = 294/591)		Women with History of Unintended Pregnancy (N = 155/288)		Men with History of Unintended Pregnancy (N = 139/303)	
	N	%	N	%	N	%
Age—mean	33.1 ^{***}	9.4	33.1 ^{***}	8.9	33.1 ^{***}	10.0
Race/Ethnicity						
White ¹	136/291 ^{2*}	46.7	76/154 [*]	49.4	60/137	43.8
Black	113/291	38.8	52/154 ^{**}	33.8	61/137	44.5
High school graduate/GED	212/294	72.1	107/155	69.0	105/139	75.5
Employed prior to incarceration	143/289	49.5	52/151	34.4	91/138	65.9
Received public benefits before incarceration	117/253	46.2	67/123	54.5	50/130	38.5
Unstably housed prior to incarceration	27/287	9.4	18/151	11.9	9/136	6.6
Lived with one child < 18 before incarceration	167/290 ^{***}	57.6	90/153 ^{***}	58.8	77/137 ^{**}	56.2
Marital status as “single”	206/282	73.0	100/143	69.9	106/139	76.3
Insured prior to incarceration	125/285	43.9	70/148	47.3	55/137	40.1
Lifetime months in jail or prison—mean	29.2	42.5	18.1	30.6	40.4	49.6
Ever diagnosed with a STI	60/287 ^{**}	20.9	40/152 ^{**}	26.3	20/135	14.8
Ever exchanged sex for drugs or money	49/288	17.0	37/149	24.8	12/139 [*]	8.6
Violent injury in year prior to incarceration	37/293	12.6	17/155	11.0	20/138 [*]	14.5
Experienced IPV in year prior to incarceration	111/257 ^{**}	43.2	78/143 ^{**}	54.5	33/144	28.9
Physical or sexual abuse before age 16	197/294	67.0	103/155	66.5	94/139	67.6
Sexual abuse before age 16	68/278 [*]	24.5	57/141 [*]	40.4	11/137	8.0
Fear of neighborhood violence—mean ³	1.5	0.9	1.5	0.9	1.5	0.9
Level perceived neighborhood violence—mean ⁴	1.3	1.6	1.2	1.5	1.4	1.6
Hearing about neighborhood violence y/n ⁵	168/294 [*]	57.1	83/155	53.5	85/139 ^{**}	61.2
Victim of neighborhood violence (or a family member)	82/287 ^{**}	28.6	40/150 [*]	26.7	42/137 [*]	30.7
Months in neighborhood prior to incarceration—mean	97.8	129.6	78.5	117.7	118.2	138.6

Note. All comparisons in this table made with Chi square tests.

- ¹Because sample size was small for other racial/ethnic categories besides White and Black, not analyzed separately.
- ²The denominators are the number of people in each category (whole sample, women, and men) who reported an unintended pregnancy. In some cases, because of missing data on the independent variables, the denominator may be less than the sample N.
- ³“In the neighborhood where you lived before being incarcerated, were you afraid you would be hurt by violence?” 1 = *None of the time*, 2 = *A little of the time*, 3 = *Most of the time*, 4 = *All of the time*.
- ⁴Level of neighborhood violence, High summary score = greater perceived neighborhood violence.
- ⁵Hearing about any of the following in the last six months (y/no): violent arguments, robbery, gang activities, murders.
- * *p* 0.05.
- ** *p* 0.01.
- *** *p* 0.001 for comparison of those with and without history of unintended pregnancy.

TABLE 3
Odds Ratios and Confidence Intervals of Factors Associated with Unintended Pregnancy, by Gender

	All (N = 596)		Women (N = 290)		Men (N = 306)	
	Unadjusted OR (95% CI)	Adjusted OR (95% CI)	Unadjusted OR (95% CI)	Adjusted OR (95% CI)	Unadjusted OR (95% CI)	Adjusted OR (95% CI)
Violent injury in year prior to incarceration	1.55 (0.90, 2.68)	1.47 (0.83, 2.61)	1.05 (0.50, 2.23)	0.95 (0.42, 2.13)	2.32 (1.04, 5.20)	2.27 (0.96, 5.37)
Experienced IPV prior to incarceration	1.77 (1.22, 2.57)	1.55 (1.03, 2.33)	2.06 (1.25, 3.40)	2.02 (1.15, 3.56)	1.34 (0.74, 2.41)	1.11 (0.59, 2.08)
History of any type of abuse before age 16	1.28 (0.90, 1.82)	1.13 (0.78, 1.64)	1.20 (0.73, 1.99)	1.08 (0.63, 1.87)	1.35 (0.83, 2.20)	1.23 (0.73, 2.08)
History of sexual abuse before age 16 ¹	1.22 (1.04, 1.42)	1.17 (1.00, 1.38)	1.25 (1.04, 1.50)	1.23 (1.02, 1.49)	1.05 (0.72, 1.51)	1.02 (0.68, 1.54)
Fear of neighborhood violence ²	1.18 (0.96, 1.45)	1.16 (0.93, 1.44)	1.13 (0.84, 1.51)	1.11 (0.80, 1.54)	1.23 (0.93, 1.62)	1.20 (0.88, 1.63)
Level of perceived neighborhood violence ³	1.00 (0.90, 1.12)	0.99 (0.89, 1.12)	0.98 (0.84, 1.15)	0.96 (0.80, 1.14)	1.03 (0.89, 1.19)	1.00 (0.86, 1.18)
Hearing about neighborhood violence ⁴	1.26 (0.90, 1.77)	1.28 (0.89, 1.84)	1.10 (0.68, 1.78)	1.08 (0.64, 1.82)	1.47 (0.92, 2.36)	1.42 (0.85, 2.38)
Victim of neighborhood violence (or family member)	1.88 (1.25, 2.83)	1.84 (1.19, 2.83)	1.85 (1.01, 3.40)	1.90 (0.99, 3.68)	1.95 (1.12, 3.39)	1.82 (1.01, 3.28)

Note. In the adjusted models, the following covariates taken into consideration: age, White race, living with children under 18 prior to incarceration, lifetime STI history, ever exchanging sex for drugs or money. Selection of covariates based upon association (p < 0.05) unintended pregnancy.

¹Did anyone ever do any of the following things when you didn't want them to: touch the private parts of your body, make you touch their private parts, threaten or try to have sex with you, sexually force themselves on you?" 0 = *Never*; 1 = *1-2 times*; 3 = *3-5*; 4 = *6-10*; 5 = *10+*.

²In the neighborhood where you lived before being incarcerated, were you afraid you would be hurt by violence?" 1 = *None of the time*; 2 = *A little of the time*; 3 = *Most of the time*; 4 = *All of the time*.

³Level of neighborhood violence, High summary score = greater perceived neighborhood violence.

⁴Hearing about any of the following in the last six months y/no question: violent arguments, robberies, gang activities, murders.