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## The Impact of Intimate Partner Violence on Women's Condom Negotiation Efficacy

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### Abstract

HIV prevention efforts promote the use of condoms to prevent the spread of HIV and other STDs. Thus, a woman's agency to practice healthy sexual behaviors necessarily involves negotiation with another person. This poses unique challenges for women who have limited power in relationships. The current study explores how the experience of intimate partner violence (IPV) impacts a woman's confidence in her ability to negotiate condom use with a sexual partner (i.e., condom use self-efficacy), using data from incarcerated females in three states, who were interviewed just prior to release back into the community. The *direct effect* of experiencing IPV as an adult, controlling for other risk factors, on condom use self-efficacy has not previously been empirically tested. Results show that IPV experiences among women significantly decreases their confidence in negotiating condom use with a partner, putting them at a higher risk of HIV infection than women who do not report having recently experienced IPV.

### Keywords

intimate partner violence/IPV; HIV/AIDS; condom use self-efficacy

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The current rate of HIV in the incarcerated population is alarming, estimated at two and a half times that of the general population (Bureau of Justice Statistics [BJS], 2009). HIV infection among incarcerated women also rates higher than infection among incarcerated men, estimated at 2.4% and 1.6% respectively in state and federal prisons (Delgado & Humm-Delgado, 2009). There are a number of individual factors associated with both incarceration and engagement in risk behaviors related to the contraction of infectious diseases. Such individual factors include low socioeconomic status, minority status, low levels of education, presence of a mental illness, substance abuse problems, and prostitution (Centers for Disease Control and Prevention [CDC], 2009). These individual factors often put women at an elevated risk for an *interpersonal* factor that is also associated with incarceration and HIV infection: intimate partner violence (Baty, 2010; El-Bassel, Gilbert, Wu, Go, & Hill, 2005; Kalichman, Williams, Cherry, Belcher, & Nachimson, 1998; Weir,

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Bard, O'Brien, Casciato, & Stark, 2008). The prevalence of these risk factors among women in the criminal justice population has led researchers and practitioners to target prevention efforts to this high-risk population.

The most common way for HIV to be transmitted is through unprotected sexual encounters with a person who is HIV positive and the use of condoms is an effective method for preventing HIV transmission during sexual encounters (Wechsberg et al., 2002). As such, prevention efforts tend to promote regular use of condoms to prevent the spread of HIV and other sexually transmitted diseases. A distinct issue for women then is that their agency to practice healthy sexual behaviors (i.e., using a condom) necessarily involves negotiation with another person; this poses a challenge for individuals who have limited power, or are powerless in their sexual relationships (e.g., women with an abusive partner; Amaro, 1995). Moreover, a recent study found that men who used violence toward their female partner were half as likely to report consistent condom use as men who did not report using violence (Frye et al., 2011).

A woman's lack of power to negotiate condom use in a sexual relationship, as well as evidence that abusive partners are less likely to use condoms, have the potential to elevate the risk of disease transmission for both herself and her partner (if the woman herself is infected). Given this heightened risk, the current study explores how the experience of intimate partner violence is related to a woman's confidence in her ability to negotiate condom use with a sexual partner, sometimes referred to as condom use self-efficacy (Frye et al., 2011; Sterk, Klein, & Elifson, 2003).

## Literature Review

Scholars argue that violence and the threat of violence have long been used by socially empowered groups toward socially inferior groups as a way of maintaining that power (see Amaro, 1995). Research has shown that this is especially true for women whose primary assailants are their male partners (Amaro, 1995; Pandey, Dutt, & Banerjee, 2009). The interpersonal violence literature demonstrates that emotional abuse is an additional method for maintaining power in a relationship (Follingstad, Rutledge, Berg, Hause, & Polek, 1990). Accordingly, both actual and threatened physical and sexual violence, as well as emotional abuse, have been incorporated into the concept of intimate partner violence (IPV; Teitelman, Ratcliffe, Morales-Aleman, & Sullivan, 2008).

There is evidence in the sexual health literature that some behaviors associated with IPV (e.g., forced unprotected sex) are direct risk factors for HIV (Lichtenstein, 2005; El-Bassel et al., 2005). Experiencing IPV can also indirectly increase HIV risk by leading to increased engagement in behaviors associated with HIV infection (such as unprotected sexual encounters due to fear of requesting condom use). Moreover, several factors that put an individual at risk for HIV, such as substance use, have also been shown to increase one's risk of IPV (see Caputo, 2008; Weir et al., 2008). In other words, the relationship between IPV and HIV is complex. Theories of gender and power (Amaro, 1995; Teitelman et al., 2008; Wingood & DiClemente, 2000) help to untangle this complexity.

Theories of gender and power, particularly as they related to HIV risk as laid out by Wingood and DiClemente (2000), maintain that there are a number of social structural and cultural factors that empower men and give them power over interpersonal decision making in numerous social situations, including sexual relationships. To understand the complex relationship between IPV and HIV, multiple structural, cultural, individual, and interpersonal factors must be taken into account, particularly race, social location, and power dynamics in sexual relationships (Amaro, 1995; Baca-Zinn, Hondagneu-Soletto, & Messner, 2005; Frye et al., 2011; Hill Collins, 2000; Nakano-Glenn, 2004; Teitelman et al., 2008; Wingood & DiClemente, 2000).

### **Structural and Cultural Factors Influencing IPV**

Inequality related to a number of structural factors, such as labor, income, and access to education, provide unequal power to men over women (Baca-Zinn et al., 2005; Nakano-Glenn, 2004; Pandey et al., 2009). Such structural inequality has negative consequences for both women and men. For instance, women living in low socioeconomic conditions, especially with substance use problems, are more likely to engage in crime, particularly prostitution, as a means of supporting themselves and/or their habits (Caputo, 2008; Ritchie, 1996). Substance use, crime, and prostitution all have been shown to (a) increase the risk of incarceration, (b) increase the risk of experiencing violence, and (c) increase the risk of HIV infection (Weir et al., 2008). Women with low economic power may also develop a level of dependence on a man for economic support, which in turn reduces their level of power and control in the relationship (Amaro, 1995; Nakano-Glenn, 2004).

Research demonstrates that because of the societal expectation of men to be economically powerful, low socioeconomic status can create insecurity and low self-esteem among men (Pandey et al., 2009). A way for men to maintain relational power when they feel threatened, either by low socioeco-nomic conditions or a partner who is less structurally dependent on them (i.e., has a good paying job), is through controlling or abusive behavior that maintains their partner's dependency on them for economic resources (e.g., forbidding them to work, threatening to leave, violence; Amaro, 1995; Pandey et al., 2009).

Intertwined within structural inequalities are a number of cultural factors that disadvantage women and empower men. Traditional gender roles give men authority in relational decision making, and with respect to sexual relationships specifically, women are encouraged to be passive, allowing men authority and control in sexual decision making (Amaro, 1995; Teitelman et al., 2008). Men who hold traditional gender role beliefs have been shown more likely than others to use violence in interpersonal relationships, and women who hold traditional gender role beliefs are less likely to feel empowered to negotiate risk reduction (Beadnell, Baker, Morrison, & Knox, 2000; Teitelman et al., 2008).

Research has demonstrated that women in abusive relationships are often fearful of requesting condom use as a result of the intersecting structural and cultural factors that diminish their agency (Amaro, 1995; Beadnell et al., 2000; El-Bassel et al., 2005). For instance, women in abusive relationships may fear that asking a partner to use a condom will arouse his suspicion that she has been unfaithful or that she is suggesting he has been unfaithful (i.e., violations of the cultural norm of monogamy), which will then lead to

violence or abuse (Amaro, 1995; Beadnell et al., 2000; El-Bassel et al., 2005). A woman who is in an abusive relationship and dependent on her partner for economic resources may fear negotiating condom use for fear that he will leave her. Or, a woman who is in an abusive relationship that maintains traditional gender role beliefs regarding her passivity may lack the power to negotiate condom use and may fear more violence and abuse as a result of suggesting protection. Unfortunately, this fear is legitimized by literature demonstrating increased experiences of violence for women who request risk reduction during sexual encounters (Amaro, 1995; Beadnell et al., 2000; El-Bassel et al., 2005). Because condom use is the primary protection against HIV and other STD infection, the reliance of interpersonal negotiation for condom use in situations of IPV reduces a woman's agency for engaging in sexually healthy behaviors.

### Extant Literature

Despite the theoretical link between intimate partner violence and HIV risk, specifically through self-efficacy related to condom use, the *direct effect* of experiencing IPV, controlling for other risk factors, on women's condom use self-efficacy has yet to be empirically tested. There is evidence of the influence of childhood victimization on condom use self-efficacy as an adult (see Beadnell et al., 2000; and Sterk et al., 2003), but research on the influence of adult victimization is sparse. Beadnell and his colleagues (2000) provide evidence for a relationship between experiencing IPV as an adult and women's condom use self-efficacy, but their analyses only provide bivariate findings. Consequently, the direct effect of experiencing IPV as an adult on condom use self-efficacy while controlling for other risk factors remains unknown.

Studies have demonstrated that both perpetrating and experiencing IPV leads to inconsistent condom use, yet the role of condom use self-efficacy is less clear. While a recent study demonstrates that men who have high levels of condom use self-efficacy are more likely to use condoms (controlling for IPV perpetration; Frye et al. 2011), inconsistent condom use as a result of *experiencing* IPV has only been speculated to be a result of women's low condom use self-efficacy; this relationship has yet to be directly tested (El-Bassel et al. 2005; Teitelman et al., 2008).

Only one study was found that examines the influence of experiencing sexual coercion (a form of IPV) on condom use self-efficacy (Kalichman et al., 1998). Results from this study indicate that women who experienced sexual coercion were less successful in persuading a man to wear a condom and were more afraid to request condom use than women who did not experience sexual coercion (Kalichman et al., 1998). Although this study assessed the influence of a form of IPV on fear of requesting protection, it did not assess participants' *confidence* in whether they could negotiate condom use.

### Theoretical Framework

Taken together, the theories and studies mentioned above suggest a relationship between intimate partner violence and women's confidence in their ability to negotiate condom use with a sexual partner. Specifically, the literature suggests that confidence in negotiating condom use may be less of a reality for disadvantaged individuals involved in abusive

relationships. Yet the empirical support for this connection is insufficient as the direct effect of experiencing IPV as an adult on confidence related to condom use negotiation has yet to be tested. Drawing from theoretical and empirical research on intimate partner violence and condom use self-efficacy, this study tests whether women who report recent instances of intimate partner violence will have lower condom use self-efficacy than women who do not report recent instances of intimate partner violence, controlling for other risk factors.

## Data and Method

### Data

This study is part of the Criminal Justice Drug Abuse Treatment Studies project (CJDATS), funded by the National Institute on Drug Abuse (NIDA). CJDATS is a national collaborative that tested several interventions for substance using populations, including an HIV/HCV intervention for reentering offenders. Participants in the study consisted of 725 adults who were incarcerated in Delaware, Kentucky, and Virginia prisons, including 557 males and 168 females aged 19 and older. Volunteers from the population of all potential releases at the time of the study were recruited for participation. Data for the analyses presented here come from the females' baseline data. (For a complete discussion of the methods used in designing and testing the intervention, see Inciardi et al., 2007; and Martin, O'Connell, Inciardi, Surratt, & Maiden, 2008).

The majority of females in this sample were involved in drug-related crimes during the 6 months prior to their incarceration. As much as 87% of respondents said they had been involved in drug-related crimes one or more times in the 6 months prior to their incarceration. Examples of drug-related crimes include public intoxication from alcohol or drugs, driving under the influence of drugs, using or possessing illegal drugs, possession with intent to distribute, and the sale or distribution of drugs. Another 39% of the respondents were involved (at least once) in property crimes (e.g., forgery/fraud, burglary, auto theft, buying or selling stolen property) during the 6 months prior to their incarceration; and about 21% of the respondents were involved in violent crimes in the 6 months prior to incarceration, including crimes such as robbery, assault, homicide, and weapons offenses.

### Measures

**Dependent variable**—Condom use self-efficacy is measured by respondents' answers to a series of items regarding their confidence in their ability to negotiate condom use with a partner. A factor analysis of all related items revealed the following index of items: "I would feel comfortable discussing condom use with a sexual partner before we ever had any sexual contact (e.g., hugging, kissing, caressing, etc.)," "I feel confident in my ability to persuade a partner to accept using a condom when we have intercourse," "I feel confident that I could use a condom with a partner without 'breaking the mood,'" "I feel confident in my ability to put a condom on my partner quickly," "I feel confident that I would remember to use a condom even if I were high," "I feel confident I could stop foreplay to put a condom on myself or my partner even in the heat of passion" (Brien, Thombs, Mahoney, & Wallnau, 1994). Responses range from *strongly disagree* (1) to *strongly agree* (5). The six items were

summed to create a scale ranging from 6 to 30, with higher scores indicating higher levels of condom use self-efficacy. Cronbach's alpha for the scale is .76.

**Key independent variables**—To capture recent experiences of intimate partner violence, the data collection instrument included the question “How many times in the last 30 days before the arrest had you been ...” with five indicators of intimate partner violence: “beaten up by a partner,” “been raped by a partner,” “run away from a partner,” “been threatened by a partner with a weapon,” “been hurt by a partner with a weapon.” Some indicator responses included severe outliers. To address this, a dichotomous IPV variable was created such that if a participant provided a response greater than zero on any indicator, they were coded 1.

**Control variables: Individual factors**—Additional individual factors that have been found to have an effect on women's condom use self-efficacy include race, education, employment status, psychiatric disorder, and substance use; therefore these are included as control variables (see Beadnell et al., 2000; Kalichman et al., 1998; and Sterk et al., 2003). Participants in this study only identified as either African American/Black or White; thus, race is measured as a dichotomous variable with Blacks coded 1.<sup>1</sup> Education is measured as respondent's highest level of education finished, regardless of whether a degree was received, and ranges from 0 (elementary) to 7 (professional degree). Employment status is measured as a 3-point ordinal scale that includes whether the respondent was *unemployed* (1), *employed part time* (2), or *employed full time* (3) in the last 6 months prior to her arrest.

To capture whether the respondent had psychiatric problems, a dichotomous response to the question “how many times in your life have you been hospitalized for psychiatric/emotional problems” was used with a response of “once” or greater coded 1. Two factors resulting from an exploratory factor analysis were saved as indicators of substance use. Both factors include responses to the question “How often during the last 6 months prior to arrest did you use (drug name)?” Responses ranged from *never/not used* (0) to *about 4 or more times per day* (8). The first factor, soft drug use, includes responses for use of alcohol (times the respondent got drunk), marijuana, and “other opiates” (other than straight heroin). The second factor, hard drug use, includes responses for use of crack, cocaine, and heroin.

**Control variables: Interpersonal factors**—In addition to the individual factors listed above, the following interpersonal or relationship factors have been shown to influence both IPV and condom-efficacy (see Frye et al., 2011; and Sterk et al., 2003). Marital status is measured as a 5-point ordinal scale increasing from *never married* (0) to *divorced, separated, cohabiting, and legally married* (4). All responses refer to the 6 months prior to the respondent's arrest. Respondents' number of sexual partners was measured by the item “How many different people did you have any kind of sex with during the last 30 days prior to arrest?” Response to this item included severe outliers and so was capped at “70 times” (less than 4% of the respondents reported numbers greater than 70 times). Finally, two items

<sup>1</sup>One of the purposes of the larger CJDATS study was to test whether matching the race and gender of the participant to the individual in the intervention would improve outcomes. Restraints of the study only allowed for African American female, African American male, White female, and White male interventions. Due to the nature of this design, racial and ethnic identities other than African American/ Black and White are not included.

were included as measures of the respondent's relationship quality with her spouse, significant other, or domestic partner in the 6 months prior to arrest (excluding physical violence which is included in the IPV measure): "tell me how often: 'you got blamed or fussed at about things you did or did not do' and 'you [and your spouse/significant other/domestic partner] had disagreements.'" Responses to these items ranged from *never* (1) to *always* (5).

### Analytic Strategy

The effective sample size for the final analysis was 118 females. The reduction in sample size from 168 is a result of skip patterns on the relationship items (i.e., respondents who reported not having a significant other prior to arrest did not respond to these questions). In addition to the skip pattern, there were missing cases for both of the drug factors and the employment status, marital status, and "number of partners" variables. The percentage of missing cases on each variable was less than 5%, so these cases were excluded from analyses.

Descriptive analyses of the variables used in this study are presented first, followed by bivariate and then multivariate analyses on the relationship between IPV and condom use self-efficacy. For the purposes of this study, ordinary least squares (OLS) multiple regression is used because the analysis examines the direct effect of IPV on condom use self-efficacy, a continuous dependent variable (Meyers, Gamst, & Guarino, 2006). To test the hypothesis that women who experience IPV will have lower levels of condom use self-efficacy than women who do not experience IPV, holding other predictors constant, the results of two models are presented for this analysis. The first model assesses the direct effects of the control variables on condom-efficacy, and the second model introduces the variable for IPV. The models are nested in this way to examine the unique influence of IPV in the model.

## Results

### Descriptives of Variables Used in Study

To illustrate the average responses to the dependent variable used in this study, the mean score on the condom use self-efficacy scale is presented in Table 1. In general, females in this sample have relatively high levels of condom use self-efficacy ( $M = 25.05$ ) given that the scale ranges from 6 to 30. In addition, 37% of the women in this sample reported experiencing at least one instance of IPV in the 30 days prior to arrest (see Table 1).

Table 1 also presents the sample distribution of the control variables used in this analysis.

**Individual characteristics**—Most of the women in this sample are Black (63%), have completed some high school (53%), and are unemployed (48%). More women report having used alcohol, marijuana, or other opiates than crack, cocaine, or heroin, and 36% of the women report a history of psychiatric problems.

**Interpersonal factors**—The majority of women in this sample have never been married (64%). On average, women reported having around 7 sexual partners in the month prior to

their arrest, though responses ranged from 0 to 70. Also, on average, the women reported that they sometimes got blamed for things they did or did not do ( $M = 3.54$ ), and sometimes had disagreements with their partners ( $M = 3.68$ ).

### The Relationship Between IPV and Condom Use Self-Efficacy

**Bivariate Results**—The bivariate mean comparison between females who report IPV and those who do not are presented in Table 2. Consistent with previous research, these findings show that females who report instances of IPV have significantly lower levels of condom use self-efficacy than those who do not report instances of IPV,  $t(81) = 2.99, p < .01$ . To examine whether this finding holds while controlling for the other risk factors mentioned previously, the multivariate analyses and results are presented next.

Table 3 displays the results of two models that assess the relationship between IPV and condom use self-efficacy among this sample. Only one individual characteristic is significant in Model 1: race. Black women had significantly higher levels of condom use self-efficacy than White women,  $b = 1.93, t(107) = 2.15, p < .05$ . With respect to interpersonal characteristics, both of the indicators of relationship quality significantly influence condom-efficacy prior to introducing the effect of IPV. Specifically, females who reported often being blamed for something they did or did not do had significantly lower condom-efficacy than females who reported this less often,  $b = -.87, t(107) = -2.26, p < .05$ . On the contrary, females who reported often having disagreements with their partner prior to arrest had significantly higher levels of condom-efficacy than females who reported having disagreements less often,  $b = 1.12, t(107) = 2.30, p < .05$ .

The results from Model 2 indicate that after adding IPV to the model, support for the hypothesis that net of other important risk factors, females who report instances of IPV 30 days prior to arrest have significantly lower levels of condom use self-efficacy than females who do not report instances of IPV,  $b = -1.99, t(106) = -2.19, p < .05$  is found. In addition, the introduction of IPV into Model 2 significantly increases variation from Model 1,  $R^2 = .18, F(1, 10) = 4.81, p < .05$ . The model containing IPV accounts for nearly 20% of the variation in condom use self-efficacy for this sample.

In addition to the effect of IPV, the finding for having disagreements with one's partner in Model 1 remains significant in this model. One explanation for this finding could be that women who are more likely to have disagreements with their partners are also more assertive or confident in general, and are thus more confident in their abilities to negotiate condom use. The positive effect for Black women on condom-efficacy also remains significant in this model. Though not explicitly hypothesized, this is a surprising finding given theoretical and empirical reason to believe that Black women are even more disadvantaged than White women in interpersonal relationships with sexual partners (Baca-Zinn et al., 2005; Hill Collins, 2000; Nakano-Glenn, 2004; Pandey et al., 2009). A potential explanation for this finding is discussed in the conclusion section.

It is important to note that the effect of being blamed by a partner prior to arrest that was significant in Model 1 disappears when IPV is entered into the model. An examination of the correlation matrix (see Table 4) reveals that being blamed for something you did or did



not do and IPV are significantly correlated,  $r(116) = .30, p < .001$ . Therefore, when IPV is entered into the model, the effect of being blamed on condom use self-efficacy is being subsumed in IPV's effect.

In sum, this analysis indicates support for the hypothesis that the occurrence of recent IPV among women significantly decreases their confidence in their ability to negotiate condom use with a sex partner, putting them and their partners at a higher risk of HIV infection than women who do not report recent experiences of IPV.

## Conclusion

This study tested the relationship between experiencing intimate partner violence and women's confidence in their ability to negotiate condom use, or condom use self-efficacy. The results from this study lend support for the hypothesis that experiencing IPV is related to lower levels of condom use self-efficacy. These findings are consistent with previous theoretical and empirical work on the relationship between IPV and condom use self-efficacy that suggests a relationship between IPV and low condom use self-efficacy among women; but the methodological rigor of this study provides more solid support for these theoretical arguments than has existed previously. In particular, this study uses multivariate analyses to analyze the unique association between recent forms of physical intimate partner violence and condom use self-efficacy while controlling for other factors, which has not previously been done in the literature.

The findings from this study also lend support for Amaro's argument for the unique HIV prevention needs of women, and especially women who experience IPV, due to the interpersonal nature of safe sex behaviors. Amaro calls for greater emphasis on use of the female condom because of its potential ability to empower women to engage in healthy sexual behaviors without necessarily relying on their partners. A female condom is available and has been incorporated into many prevention programs; however, 15 years after Amaro first addressed this issue (1995) the female condom has yet to become a mainstream and acceptable form of protection. The study presented here provides a justification for beginning to explore the promotion of the female condom as a way to empower women, particularly women who have experienced intimate partner violence and do not feel empowered to negotiate condom use with their sexual partners.

A project that is part of the Criminal Justice Drug Abuse Treatment Study mentioned earlier is examining the effects of an HIV prevention intervention for reentering offenders that includes a section on the demonstration of a female condom. (Inciardi et al., 2007; Martin et al., 2008). Though it will be difficult to isolate the effect of the female condom segment of the intervention, future analyses will explore whether the intervention as a whole was effective in improving the condom use self-efficacy of women who reported instances of IPV prior to arrest. Analyses will also examine whether IPV had an indirect effect on actual condom use through condom-efficacy and the effectiveness of the intervention in improving this relationship if it exists.

This study produced significant and important findings, but there are a few limitations to these analyses. First, additional factors that may be involved in predicting condom use self-efficacy and that are also correlated with IPV (such as sexual orientation or IQ) were not included in the model analyzed here because they were not available in this data set. As such, conclusions should be interpreted with this limitation in mind. Second, although the sample spans three states, it is not representative of the general population of women. The fact that the findings are consistent with previous research on other samples of women helps with this limitation. Furthermore, there may be factors unique to this high-risk population that are not generalizable to the general population, and are thus important to know when designing targeted prevention efforts for populations involved with the criminal justice system. Another limitation of this study is that measures of emotional abuse on condom use self-efficacy were not available, although the relationship item pertaining to being blamed could be tapping a form of emotional abuse given its significant correlation with the IPV measure. Emotional abuse as a form of IPV has shown to be unevenly distributed among women based on race (Beadnell et al., 2000), and emotional abuse as a child has been shown to significantly lower women's condom-efficacy (Sterk et al., 2003). Future research should examine whether emotional abuse that occurs as an adult has a direct effect on condom use self-efficacy, and whether there are race differences in this relationship.

In addition to exploring racial disparities in the relationship between emotional abuse and condom use self-efficacy, the finding from this study that Black women reported significantly higher levels of condom use self-efficacy than White women also warrants further explorations into how a woman's race matters for these relationships. The prevalence of HIV, particularly in the incarcerated population, is higher for Blacks than it is for Whites (BJS, 2009). Moreover, the rate of HIV among Black women exceeds that for Black men, and AIDS is one of the leading causes of death among incarcerated Black women (Delgado & Humm-Delgado, 2009). Black women's knowledge and recognition of this heightened epidemiological risk of infection could be one potential explanation for this study's finding that Black women have significantly higher levels of condom use self-efficacy than their White counterparts. Further exploration is needed to understand this finding.

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## References

- Amaro H. Love, sex, and power: Considering women's realities in HIV prevention. *American Psychologist*. 1995; 50:437–447. [PubMed: 7598292]
- Baca-Zinn, M.; Hondagneu-Soletto, P.; Messner, MA. *Gender through the prism of difference*. 3rd. New York, NY: Oxford University Press; 2005.
- Baty, ML. The intersection of HIV and intimate partner violence: Considerations, concerns, and policy implications. 2010. Retrieved from [http://www.endabuse.org/health/ejournal/archive/1-7/printable/hiv\\_ipv.htm](http://www.endabuse.org/health/ejournal/archive/1-7/printable/hiv_ipv.htm)
- Beadnell B, Baker SA, Morrison DM, Knox K. HIV/STD risk factors for women with violent male partners. *Sex Roles*. 2000; 42:661–689.

- Brien TM, Thombs DL, Mahoney CA, Wallnau L. Dimensions of self-efficacy among three distinct groups of condom users. *Journal of American College Health*. 1994; 42:167–174. [PubMed: 8132940]
- Bureau of Justice Statistics. HIV in prisons, 2007-08 (NCJ228307). Washington, DC: Department of Justice, Office of Justice Programs; 2009. Retrieved from <http://bjs.ojp.usdoj.gov/index.cfm?ty=pbdetail&iid=1747>
- Caputo, G. *Out in the storm: Drug-addicted women living as shoplifters and sex workers*. Boston, MA: Northeastern University Press; 2008.
- Centers for Disease Control and Prevention. Prevention and control of infections with hepatitis viruses in correctional settings. *Morbidity and Mortality Weekly Report*. 2003; 52(RR-1):1–33.
- Centers for Disease Control and Prevention. HIV testing implementation guidance for correctional settings. 2009. Retrieved from [www.cdc.gov/hiv/topics/testing/resources/guidelines/correctional-settings](http://www.cdc.gov/hiv/topics/testing/resources/guidelines/correctional-settings)
- Delgado, M.; Humm-Delgado, D. *Health and health care in the nation's prisons: Issues, challenges, and policies*. Lanham, MD: Rowan & Littlefield; 2009.
- El-Bassel N, Gilbert L, Wu E, Go H, Hill J. HIV and intimate partner violence among Methadone-maintained women in New York City. *Social Science & Medicine*. 2005; 61:171–183. [PubMed: 15847970]
- Follingstad DR, Rutledge LL, Berg BJ, Hause ES, Polek DS. The role of emotional abuse in physically abusive relationships. *Journal of Family Violence*. 1990; 5:107–120.
- Frye V, Ompad D, Chan C, Koblin B, Galea S, Vlahov D. Intimate partner violence perpetration and condom use-related factors: Associations with heterosexual men's consistent condom use. *AIDS and Behavior*. 2011; 15:153–162. [PubMed: 20069447]
- Hill Collins, P. *Black feminist thought: Knowledge, consciousness, and the politics of empowerment*. New York, NY: Routledge; 2000.
- Inciardi JA, Surratt HL, Martin SS, O'Connell DJ, Salandy AD, Beard RA. Developing a multimedia HIV and hepatitis intervention for drug-involved offenders reentering the community. *The Prison Journal*. 2007; 87(1):111–142.
- Kalichman SC, Williams EA, Cherry C, Belcher L, Nachimson D. Sexual coercion, domestic violence, and negotiating condom use among low-income African American women. *Journal of Women's Health*. 1998; 7:371–378.
- Lichtenstein B. Domestic violence, sexual ownership, and HIV risk in women in the American deep south. *Social Science & Medicine*. 2005; 60:701–714. [PubMed: 15571889]
- Martin SS, O'Connell DJ, Inciardi JA, Surratt HL, Maiden KM. Integrating and HIV/HCV brief intervention in prisoner reentry: Results of a multisite prospective study. *Journal of Psychoactive Drugs*. 2008; 40:427–436. [PubMed: 19283947]
- Meyers, LS.; Gamst, G.; Guarino, AJ. *Applied multivariate research: Design and interpretation*. Thousand Oaks, CA: SAGE; 2006.
- Nakano-Glenn, E. *Unequal freedom: How race and gender shaped American citizenship and labor*. Cambridge, MA: Harvard University Press; 2004.
- Pandey GK, Dutt D, Banerjee B. Partner and relationship factors in domestic violence. *Journal of Interpersonal Violence*. 2009; 24:1175–1191. [PubMed: 18840848]
- Ritchie, B. *Compelled to crime: The gender entrapment of battered, Black women*. New York, NY: Routledge; 1996.
- Sterk CE, Klein H, Elifson KW. Perceived condom use self-efficacy among at-risk women. *AIDS and Behavior*. 2003; 7:175–182. [PubMed: 14586202]
- Teitelman AM, Ratcliffe SJ, Morales-Aleman MM, Sullivan CM. Sexual relationship power, intimate partner violence, and condom use among minority urban girls. *Journal of Interpersonal Violence*. 2008; 23:1694–1712. [PubMed: 18349344]
- Wechsberg, WM.; MacDonald, BR.; Dennis, ML.; Inciardi, JA.; Surratt, HL.; Leukefeld, CG.; et al. Zule, B. *The standard intervention for reduction in HIV risk behavior: Protocol changes suggested by the continuing HIV/AIDS epidemic*. Bloomington, IL: Chestnut Health Systems/Lighthouse Institute; 2002.

Weir BW, Bard RS, O'Brien K, Casciato CJ, Stark MJ. Violence against women with HIV risk and recent criminal justice system involvement: Prevalence, correlates, and recommendations for intervention. *Violence Against Women*. 2008; 14:944–960. [PubMed: 18667407]

Wingood GM, DiClemente RJ. Application of the theory of gender and power to examine HIV-related exposures, risk factors, and effective interventions for women. *Health Education and Behavior*. 2000; 27:539–556. [PubMed: 11009126]

## Biographies

**Holly Swan** is a doctoral student in the Sociology and Criminal Justice Department at the University of Delaware. She is currently a research assistant at the Center for Drug and Alcohol Studies where she is involved with the second phase of the Criminal Justice Drug Abuse Treatment Studies project (CJDATS2), a project funded by the National Institute on Drug Abuse (NIDA) that is developing and testing strategies for implementing evidence-based practices in criminal justice agencies for drug-using offenders. Her interests include deviance, health, social problems, and implementation science. She received her MA and BA in sociology from Kent State University.

**Daniel J. O'Connell, PhD**, is a scientist at the Center for Drug and Alcohol Studies at the University of Delaware. His interests are in criminological theory, with a focus on desistance from criminal and addiction careers and the relationship of theory to correctional practice; racial and gender implications of desistance theory; prisoner reentry, drug treatment, and corrections; HIV prevention for drug-involved persons and video-based methods of intervention technology transfer.

**Table 1**  
**Means, Percentages, and Ranges of Variables in Study (N = 118)**

Variable	Mean/%	Range
Dependent variable		
Condom-efficacy	25.05	6-30
Key independent variable		
IPV	37%	0-1
Individual characteristics		
Black	63%	0-1
Some high school	53%	1-5
Unemployed	48%	1-3
Soft drug use	0.30	-1.02-3.83
Hard drug use	-0.09	-1.87-3.32
Mental illness history	36%	0-1
Interpersonal characteristics		
Never married	64%	0-4
Number of partners	7.36	0-70
Blamed	3.54	1-5
Disagreements	3.68	1-5

Note: Percentages reported for ordinal control variables correspond to the modal category of that variable

**Table 2**  
**Means Comparisons for Condom Use Self-Efficacy by IPV ( $N = 118$ )**

	IPV	No IPV
Condom use self-efficacy	23.41** (4.805) $n = 44$	26.03 (4.191) $n = 74$

Note: Numbers in parentheses are standard deviations. IPV = intimate partner violence.

\*\*  
 $p < .01$

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**Table 3**  
**The Relationship Between IPV and Condom Use Self-Efficacy (N = 118)**

Variables	Model 1	Model 2
Individual characteristics		
Black	1.928* (.897)	1.890* (.882)
Education	0.242 (.466)	0.173 (.459)
Employment status	-0.622 (.512)	-0.433 (.511)
Soft drug use	0.416 (.404)	0.312 (.400)
Hard drug use	-0.241 (.403)	-0.203 (.396)
Mental illness	-1.619 (.880)	-1.320 (.875)
Interpersonal characteristics		
Marital status	-0.100 (.384)	-0.058 (.378)
Number of partners	-0.025 (.028)	-0.020 (.027)
Blamed	-0.865* (.383)	-0.631 (.392)
Disagreements	1.124* (.488)	1.082* (.480)
Intimate partner violence	—	-1.986* (.906)
Constant	24.085	23.836
R <sup>2</sup>	0.142	0.179*
Adjusted R <sup>2</sup>	0.062	0.094

Note: Numbers in parentheses are standard errors. IPV = intimate partner violence.

\*  $p < .05$ .

Table 4

## Correlations of Variables in Study (N = 118)

	Soft Drugs	Hard Drugs	Education	Employment	Marital Status	Blamed	Disagreements	N partners	Black	IPV	Mental Illness	Condom-Efficacy
Soft drugs	1.000											
Hard drugs	.161	1.000										
Education	.013	-.079	1.000									
Employment	-.280	-.217	.208	1.000								
Marital status	.072	-.035	-.003	-.057	1.000							
Blamed	.135	.127	-.089	-.263	.136	1.000						
Disagreements	.029	.021	-.122	-.053	.072	.608	1.000					
N partners	.296	-.081	.093	-.078	.161	.091	.118	1.000				
Black	.024	-.072	-.043	.117	-.239	-.123	-.132	.052	1.000			
IPV	-.064	.028	-.052	.077	.115	.296	.180	.076	-.058	1.000		
Mental illness	.176	.017	-.014	-.065	.154	.078	.025	.063	-.086	.159	1.000	
Condom-efficacy	.047	-.055	.006	-.029	-.115	-.122	.063	-.036	.208	-.277	-.186	1.000

Note: IPV = intimate partner violence.