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ORIGINAL PAPER

Intimate Partner Violence and Coerced Unprotected Sex Among Young Women Attending Community College

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Abstract

The present study examined the mediating role of sexual assertiveness in the relationship between psychological, physical, and sexual intimate partner violence (IPV) victimization and unprotected sex as a result of condom use resistance among sexually active young women attending community college. Women reported engagement in unprotected sex as a result of a partner's use of one of 32 forms of condom use resistance (e.g., physical force, deception, or other forms of coercion to avoid using a condom during intercourse). Women ages 18–24 years ($N = 212$) attending community college were recruited through paper advertisements to complete assessments of social and dating behavior in the campus computer laboratory. Only the women with a history of sexual intercourse ($N = 178$; 84% of the sample) were included in analyses. More frequent engagement in unprotected sex as a result of a partner's condom use resistance was associated with physical, psychological, and sexual IPV victimization. Sexual assertiveness mediated the relationship between physical IPV victimization and the frequency of unprotected sex as a result of condom use resistance. Efforts to prevent dating violence and enhance the sexual health of community college women may benefit from focusing on targeting sexual assertiveness as a protective factor.

Keywords Victimization · Condom use · Intimate partner violence · Mediation

Introduction

Rates of intimate partner violence (IPV), including physical, sexual, or emotional harm from a current or former partner (Centers for Disease Control & Prevention, 2014), in the U.S. are high, with one in three women experiencing rape, physical violence, or stalking by an intimate partner in their lifetime (Black et al., 2011). Women ages 18–24 years who attend college are at three times higher risk than women in general to experience sexual violence (Black et al., 2011; Department of Justice, 2014), and approximately half (47%) of female victims of IPV first experience violence by an intimate partner between the ages of 18–24 years (Centers for Disease Control & Prevention, 2010). One study of college women documented that 10.2%, 15.6%, and 16.2% of college women experience physical, sexual, or psychological IPV, respectively, during college (Forke, Myers, Catallozzi, & Schwarz, 2008).

Contraceptive use is also a significant concern among college students. Most heterosexual young women do not consistently use condoms (Bonacquisti & Geller, 2013; Calsyn et al., 2013; Nesoff, Dunkle, & Lang, 2016; Roberts & Kennedy, 2006). In fact, 29.8% and 35.4% of African-American

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and Caucasian college students, respectively, report that they "never" or "rarely" used condoms during vaginal sex in the past 30 days (Buhi, Marhefka, & Hoban, 2010). Unprotected sex is associated with sexually transmitted infections (STIs), human immunodeficiency virus (HIV), and unwanted pregnancy (Holmes, Levine, & Weaver, 2004). These health consequences commonly occur among college-age women (Breiding, Basile, Smith, Black, & Mahendra, 2015; Finer & Zolna, 2011). One study of over 40,000 unmarried undergraduate students found that 4.9% and 8.8% of Caucasian and African-American undergraduate women, respectively, reported a past year STI, and 4.9% and 6.5% of Caucasian and African-American undergraduate women, respectively, reported an unwanted pregnancy during an academic year (Buhi et al., 2010). Early research documented the seroprevalence rate of HIV among college women to be 0.02% (Gayle et al., 1990). The American College Health Association (2018) estimates that 1 in 532 college women is infected with HIV, which is commonly acquired through unprotected sexual intercourse.

Numerous studies document a connection between IPV and negative sexual health outcomes. Compared to women without a history of IPV, women who experience partner violence are more likely to engage in unprotected sex and, as a result, are at higher risk for STI/HIV (El-Bassel et al., 2003; Maxwell, Devries, Zionts, Alhusen, & Campbell, 2015; Mittal, Senn, & Carey, 2013; Swan & O'Connell, 2012; Seth, Wingood, Robinson, Raiford, & DiClemente, 2015; Stokes, Harvey, & Warren, 2016; Teitelman, Ratcliffe, Morales-Aleman, & Sullivan, 2008; Wingood & DiClemente, 1997). Problematically, a recent review of 42 studies examining IPV and condom use among women (Bergmann & Stockman, 2015) included only one study focused on college women (Fair & Vanyur, 2011), and no studies focused on community college women. Specifically, Fair and Vanyur's (2011) study of college women suggested students who experience verbal coercion in their relationships were also less likely to consistently use condoms during sexual intercourse. As young adults are at high risk for IPV and sexual risk behavior, more research is warranted to examine the intersection of IPV and sexual risk among college-age women.

There are several potential explanations for the association between IPV and sexual risk. In the context of an abusive relationship, women may refrain from asking their partner to use a condom as a way to avoid an argument, reduce the likelihood of physical injury, or promote trust in the relationship (Kacanek et al., 2013; Mittal et al., 2013). For example, Mittal et al. documented that fear of violent consequences mediated the association between IPV and condom use among individuals seeking treatment at an STD clinic. Perpetrators of violence may also refuse women's requests to use a condom (Minton, Mittal, Elder, & Carey, 2016; Raiford, Seth, Braxton, & DiClemente, 2013). In addition, the psychological consequences of IPV victimization can make it difficult for women to effectively negotiate using a condom with their partner (El-Bassel, Caldeira, Ruglass, & Gilbert, 2009; Kuo et al., 2014). Compared with non-victims, women with a history of rape or attempted rape report lower levels of sexual assertiveness (Anderson, Brouwer, Wendorf, & Cahill, 2016; Kelley, Orchowski, & Gidycz, 2016), which is a more salient predictor of condom use than general levels of assertiveness (Teitelman et al., 2008). As individuals who anticipate a negative partner reaction to condom use negotiation are likely to demonstrate low sexual assertiveness and condom use self-efficacy (Morokoff et al., 1997; Quina, Harlow, Morokoff, Burkholder, & Deiter, 2000), it is possible that sexual assertiveness may mediate the association between IPV and condom use in relationships.

Many women who experience IPV also indicate that their partner engages in reproductive coercion, which includes birth control sabotage and refusal to use a condom (El-Bassel et al., 2003; Maxwell et al., 2015; Wingood, DiClemente, McCree, Harrington, & Davies, 2001). A growing number of studies suggest that men use a range of coercive and aggressive tactics to successfully engage women in unprotected sex, even when women desire to use a condom (Davis & Logan-Greene, 2012; Davis et al., 2014a, 2014b; Debro, Campbell, & Peplau, 1994; Measor, 2006). The term "condom use resistance tactics" describes how men use arguments, pressure, lies, false promises, guilt, sulking, anger, physical force, or deliberately provide a partner with alcohol to engage in sexual intercourse without a condom (Davis & Logan-Greene, 2012).

Research suggests that the use of condom use resistance tactics is pervasive among college students. For example, 44% of young adults commonly report wanting to avoid using a condom during sexual activity (Tschann, Flores, De Groat, Deardorff, & Wibbelsman, 2010), and almost half of male and female college students indicate that they failed to use a condom during sexual intercourse as a result of a partner's resistance (Smith, 2003). In a community sample of 313 moderate drinking men, use of condom use resistance was associated with an overarching pattern of antisocial traits, including negative beliefs about women, levels of sensation-seeking, and impulsivity (Davis et al., 2014b). Focus groups among young men who have sex with women also suggest that using deception or condom sabotage are viewed as normative behavior to engage women in unprotected sex (Davis et al., 2014a). These data are concerning, as engaging a partner in unprotected sex can increase the risk of STI/HIV (Holmes et al., 2004). Condom use resistance may also represent reproductive coercion, defined by the American College of Obstetricians and Gynecologists (2013) as behavior to maintain power and control over a partner's reproductive health in a relationship, including

sabotage of contraceptive methods, pregnancy coercion, or active interference with contraceptive methods in an attempt to promote pregnancy. Of note, although Smith (2003) reported that women have engaged in sexual intercourse without a condom (despite their interest in using condoms), no study to date has examined women's reports of the various types of condom use resistance utilized by a partner to successfully engage a woman in an unprotected sex.

The Present Study

The present study contributes to the literature by examining physical, psychological, and sexual IPV victimization, sexual assertiveness, and engagement in unprotected sex (despite a desire to use a condom) among community college young women between the ages of 18 and 24. Research focusing on community college women is warranted for several reasons. Upwards of 41% of undergraduate students are enrolled in a community college (American Association of Community Colleges, 2017). Problematically, community college students are often overlooked in research despite evidence suggesting that health risk behavior varies between 4-year and community college students (Carter, Brandon, & Goldman, 2010; Nelson, Larson, Barr-Anderson, Neumark-Sztainer, & Story, 2009; Sanem, Berg, An, Kirch, & Lust, 2009; Simons-Morton, O'Brien, Lipsky, Bible, & Liu, 2017). For example, compared to 4-year college students, students enrolled in community colleges were less likely to use condoms or receive HIV testing, and more likely to utilize emergency contraception, experience unintended pregnancy, and report STIs (Attin, 2012; Shapiro, Radecki, Charchian, & Josephson, 1999; Trieu, Bratton, & Marshak, 2011). These sexual risk behaviors are associated with IPV (Capaldi, Knoble, Shortt, & Kim, 2012).

Community college students are also likely to report an untreated mental health condition (Eisenberg, Broton, Goldrick-Rab, & Lipson, 2016), and only 42% of community colleges reported having on-campus health centers (Association for Student Conduct Administration [ASCA], 2015). In addition to a lack of infrastructure to address student mental health at community colleges, community colleges are likely to serve low-income, first-generation, and non-native English speakers (Ma & Baum, 2016), which can serve as barriers to accessing mental health services (Ojeda & Bergstresser, 2008). These findings are concerning, given that having a mental health condition is a risk factor for IPV (Capaldi et al., 2012). These factors highlight the importance of examining the intersection between violence and sexual health experiences among women attending community college.

To our knowledge, this is the first study to examine the intersection of experiencing condom use resistance and IPV among women in general, and the first study to address these variables among community colleges students in particular. This is also the first study to implement Davis et al.'s (2014b) measure of condom use resistance tactics among young women and to garner their perspective on the range of strategies that a male partner has utilized to avoid wearing a condom during sexual intercourse. The present study first sought to document the types of condom use resistance strategies that women experienced from their partners. Next, the study sought to explore whether experiencing condom use resistance would vary as a function of having a history of IPV. Given that multiple studies reveal associations between physical IPV and unprotected sex (e.g., El-Bassel et al., 2003; Maxwell et al., 2015), we hypothesized that women with a history of IPV would be more likely than women without such a history to report that a partner had successfully avoided using a condom with them during sex, when they had desired to use one (Hypothesis 1). In light of prior research on associations between physical IPV victimization and sexual assertiveness (e.g., Anderson et al., 2016; Kelley et al., 2016; Minton et al.; Raiford et al., 2013), we hypothesized that physical, psychological, and sexual IPV victimization would be associated with lower levels of sexual assertiveness (Hypothesis 2). Given prior findings documenting an association between sexual assertiveness and unprotected sex (Teitelman et al., 2008), we also hypothesized that sexual assertiveness would be associated with experiencing condom use resistance tactics from a partner (Hypothesis 3). To add to the literature regarding the mechanisms through which IPV increases risk for negative sexual health outcomes, we also explored the hypothesis that sexual assertiveness would mediate the association between various forms of IPV and the experience of condom use resistance from a partner.

Method

Participants

All study procedures were reviewed and approved by the local Institutional Review Board. Women were recruited through print advertisements distributed on the campus. The research was advertised as a study of women's health and dating experiences. Women completed the survey assessments in private on-campus computer laboratories via commercially available online survey software. A female research assistant was present to answer any questions. Women were compensated $25 for their time. Most women completed the survey battery in 30–60 min. Study measures were subsumed in a larger study of health and dating behaviors among community college young women.

Participants included 212 women, between 18 and 24 years of age, attending a large community college in the

Northeast U.S. Of the 212 participants, 34 (16%) with no history of sexual activity were excluded from analyses, resulting in an analytic sample of 178 women. In the analytic sample of 178 women, when asked to self-identify their race, 30.9% of participants self-identified as "other" ($n = 55$) and 37.1% as Caucasian ($n = 66$). Participants were on average 19.76 years of age (SD = 1.72). Most of the women in the sample self-identified as non-married (92.1%, $n = 164$). When queried about their current dating status, 32.6% ($n = 58$) and 47.8% ($n = 85$) reported that they were currently dating casually or in a long-term monogamous relationship, respectively. Demographic characteristics for the analytic sample are presented in Table 1.

Measures

Demographic Characteristics

Participants reported their age, race, ethnicity, annual family income, marital status, and current dating status. Individuals reported race and ethnicity separately across two survey questions. This questionnaire also allowed individuals to note whether they had not previously engaged in vaginal, oral, or anal intercourse.

Intimate Partner Violence Victimization

The Conflict Tactics Scale-2 (CTS-2) is a 78-item measure used to identify behaviors associated with domestic violence. Participants indicate if they have experienced each behavior once, twice, 3–5 times, 6–10, 11–20 times, more than 20 times in the past year, not in the past year but at some time before, or never. The scale is comprised of five subscales: physical IPV, psychological IPV, sexual IPV, negotiation (defined as "actions taken to settle a disagreement"), and injury (defined as "partner-inflicted physical injury, as indicated by bone or tissue damage, a need for medical attention, or pain continuing for a day or more") (Strauss, Hamby, Boney-Mccoy, & Sugarman, 1996). For the present research, only lifetime physical, psychological, and sexual IPV victimization were examined. Several studies support the reliability and validity of this scale (Jones, Ji, Beck, & Beck, 2002; Lucente, Fals-Stewart, Richards, & Goscha, 2001; Newton, Connelly, & Landsverk, 2001).

Sexual Assertiveness

The Sexual Assertiveness Scale (SAS; Morokoff et al., 1997) is an 18-item measure that assesses the frequency of engaging in assertive behaviors during intimate situations. Participants respond to each item along a 5-point scale, with response options ranging from 0—"Never, 0% of the time"—to 4—"Always, 100% of the time." Responses were summed. Higher scores indicate a greater willingness to assert one's sexual desires and limits. Construct validity for the SAS is demonstrated in significant shared variance with other measures of global sexual assertiveness (Morokoff et al., 1997). For purposes of the present study, the full-scale score was utilized. The range of sum scores in the present sample was 17–55 ($M = 45.50$, SD = 11.05). In the present sample, Cronbach's alpha for the 18-item measure was .82.

Condom Use Resistance Tactics

The Condom Use Resistance Tactics Scale (Davis et al., 2014b) was developed to assess men's use of strategies to avoid using a condom with a female partner. For the purpose of the present study, the scale was adapted to assess women's frequency of engaging in unprotected sex as a result of experiencing each of the condom use resistance tactics from a male partner. Specifically, participants were asked to report the number of times (0, 1, 2, etc., up to 20, 21 or more) since the age of 14 that a male partner had avoided using a condom to engage them in sexual intercourse when they personally wanted to use one. For correlation and mediation analyses, a continuous score indicating the frequency of experiencing

Table 1 Demographic characteristics, physical victimization, and condom use resistance tactics ($N = 178$)

Demographic characteristic	*N* (%)
Ethnicity	
White	66 (37.1)
American Indian	5 (2.8)
Asian	3 (1.7)
Black/African-American	33 (18.5)
Multiracial	16 (9)
Other	55 (30.9)
Household income, *n* (%)	
Unemployed or disabled	17 (9.6)
$10,000–$20,000	24 (13.5)
$20,001–$30,000	10 (5.6)
$30,001–$40,000	12 (6.7)
$40,001–$50,000	5 (2.8)
$50,001–$75,000	15 (8.4)
$75,001–$100,000	4 (2.2)
$100,000+	5 (2.8)
Uncertain	86 (48.3)
Dating Status	
Not dating	28 (15.7)
Dating casually	58 (32.6)
Monogamous relationship	85 (47.8)
Engaged	5 (2.8)
Married	2 (1.1)

Table 2 Young women's experiences of condom use resistance tactics ($N = 178$)

Has a partner successfully avoided using a condom when you who wanted to use one by:		%	N
Any type Subscale		58.4	109
Seduction $\alpha = .90$	Getting you so sexually excited that you agreed to have sex without a condom	42.7	76
	Getting you really aroused and then starting to have sex without a condom	40.4	72
	Seducing you until you were willing to have sex without a condom	27	48
Emotional consequences $\alpha = .65$	Telling you how happy they would be if they had sex without a condom	23	41
	Telling you how upset they would be if they did not have sex	12.4	22
	Telling you how angry they would be if they insisted on using a condom	6.7	12
Relationship and trust $\alpha = .63$	Promising to have a relationship so you would have sex without a condom	6.2	11
	Telling you that they were special so that you would have sex without a condom	10.1	18
	Telling you that you trusted each other so that you'd have sex without a condom	20.2	36
Risk-level reassurance $\alpha = .73$	Reassuring you that they were "clean" (i.e., did not have any STD's)	22.5	40
	Promising that they would pull out before they ejaculated	39.9	71
	Telling you that you didn't need to use one this time since you didn't last time	19.7	35
	Telling you that you could just use Plan B ("morning after pill")	15.7	28
Reduced sensitivity $\alpha = .84$	Telling you they didn't want to use a condom because they are uncomfortable	22.5	40
	Telling you they didn't want to use a condom because sex doesn't feel as good	31.5	56
	Telling you that they can't feel anything when they wear a condom	25.3	45
Withholding sex $\alpha = .91$	Telling you that they would not have sex with you if they had to use a condom	5.1	9
	Making it clear that they would not have sex if they had to use a condom	5.1	9
	Refusing to have sex with you if they had to use a condom	5.6	10
Direct request $\alpha = .86$	Asking you to not use a condom during sex	15.7	28
	Making a direct request to not use a condom	16.3	29
	Being clear that they would like to not use a condom	19.7	35
Deception $\alpha = .49$	Lying by telling you they would pull out before they ejaculated	12.9	23
	Pretending that they have a latex allergy and cannot use condoms	5.6	10
	Pretending that they had been tested and did not have any STD's	9.6	17
	Pretending they had a vasectomy so that they would agree to not use a condom	2.8	5
Condom sabotage $\alpha = .85$	Agreeing to use a condom, but intentionally breaking it	2.2	4
	Agreeing to use a condom, but intentionally breaking the condom after it was on	1.7	3
	Agreeing to use a condom, but removing it before/during sex without telling you	7.9	14
Physical threat/force $\alpha = .90$	Preventing you from getting a condom by staying on top of you	5.1	9
	Threatening to hurt you if you would not have sex without a condom	1.7	3
	Using physical force to get you to have sex without a condom	1.7	3

α = internal consistency reliabilities for each of the ten subscales

Table 3 Correlations between physical, psychological, and sexual IPV victimization and the frequency of experiencing condom use resistance ($N = 178$)

	1	2	3	4
1. Physical IPV victimization	–	–	–	–
2. Psychological IPV victimization	.38***	–	–	–
3. Sexual IPV victimization	.27***	.30***	–	–
4. Sexual assertiveness	−.17*	−.08	−.29***	–
5. Frequency of condom use resistance	.25***	.27***	.32***	−.19*

*$p < .05$; **$p < .01$; ***$p < .001$

various types of condom use resistance was created by summing responses for all items on the scale. A total of 32 items, with 10 subscales, described a variety of resistance tactics. These items, their subscales, and internal consistency reliabilities are presented in Table 2. Internal consistency for the full scale (32 items) in the current sample was good ($\alpha = .91$).

Data Analysis

All data analyses were conducted using the Statistical Package for Social Sciences, Version 24.0. Women who indicated no history of vaginal, oral, or anal sexual intercourse were excluded from analyses, resulting in a final sample of

178 women. Sample characteristics are shown in Table 1. Descriptive statistics regarding women's experiences of unprotected sex because of condom use resistance tactics from a partner are shown in Table 2. A series of correlation analyses were conducted to examine univariate associations between sexual assertiveness, physical, psychological, and sexual IPV victimization, and the frequency of experiencing condom use resistance tactics (Hypothesis 1, see Table 3). For these analyses, condom use resistance was examined as a continuous variable. The 10 separate subscales of the condom use resistance tactics measure revealed internal consistencies ranging from unacceptable ($\alpha = .49$) to good ($\alpha = .91$); see Table 2. The full 32-item scale condom use resistance tactics scale demonstrated good ($\alpha = .91$) internal consistency. As a result, the full scale was entered as the outcome variable. Each form of IPV was entered as a continuous variable.

A series of correlation analyses were conducted to examine whether sexual assertiveness demonstrated an association with the occurrence of each form of IPV victimization (Hypothesis 2), and whether sexual assertiveness demonstrated an association with the frequency of condom use resistance from a partner (Hypothesis 3). Finally, we examined sexual assertiveness as a mediator of the association between each form of IPV victimization and the frequency of condom use resistance from a partner (Hypothesis 4). The mediation model was examined only when a form of IPV demonstrated a significant association with both sexual assertiveness and the frequency of condom use resistance from a partner. A continuous scale indicating the frequency of experiencing condom use resistance was utilized. These analyses were conducted using a SPSS macro created by Preacher and Hayes (2004, 2008) for calculating direct and indirect effects using a nonparametric bootstrapped multivariate approach to the cross-product of the coefficient test. This analytic strategy provides a single test between the independent variable, mediator variables, and outcome variable by multiplying the coefficients for "path a" and "path b" and then examining the significance of the result. Using a bootstrapping technique, 10,000 random samples were taken from the data. Each value is replaced as it is sampled, and the indirect effect (i.e., "a*b") is computed in each sample. A point estimate of the indirect effect is derived by determining the average indirect effect across the samples, and confidence intervals are calculated from the distribution of the indirect effect scores. An indirect effect is significant if the confidence interval does not contain zero. The mediation analyses are presented in Figs. 1 and 2.

Results

A chi-square test of independence examined the association between demographic variables and inclusion in analyses based on history of sexual activity. Given small cell sizes for some categorical variables (race/ethnicity, income), these variables were dichotomized. Specifically, race/ethnicity was classified as non-White (coded 0) or non-Hispanic Caucasian (coded 1). Income was classified as less than or greater than

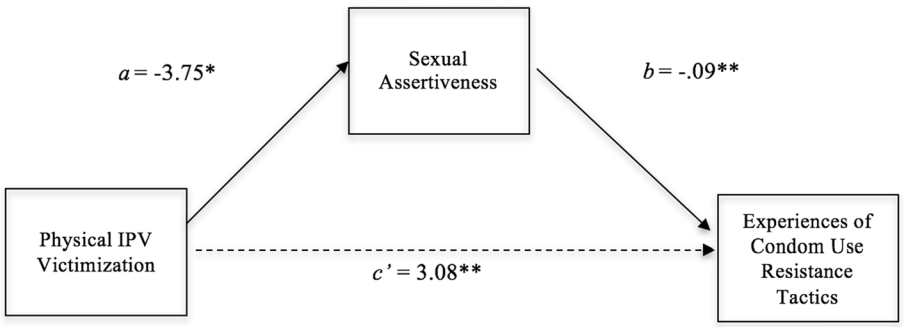

Fig. 1 Sexual assertiveness mediates the association between physical IPV victimization and women's experiences of condom use resistance tactics. *Note.* Standardized regression coefficients for the relationship between physical IPV victimization and experience of condom use resistance tactics, as mediated by sexual assertiveness; *$p < .05$; **$p < .01$

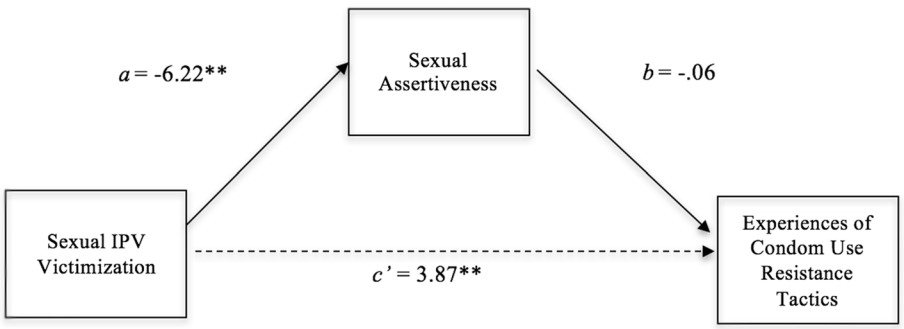

Fig. 2 Associations between sexual IPV victimization, sexual assertiveness, and women's experiences of condom use resistance tactics. *Note.* Standardized regression coefficients for the relationship between sexual IPV victimization and experience of condom use resistance tactics, as mediated by sexual assertiveness; **$p < .01$

$20,000. Results indicated a significant association between reported race/ethnicity and history of sexual activity, $\chi^2(1, N=212)=4.56$, $p<.05$, such that women classified as non-Hispanic Caucasian (91.5%) were more likely than women classified as non-White (80.1%) to report a history of sexual activity. The association between income (less than/greater than $20,000) and history of sexual activity was not significant ($p=.54$). In the analytic sample, we also conducted t tests to examine whether demographic characteristics of race/ethnicity (non-Hispanic Caucasian/non-White) and income (less than/greater than $20,000) varied as a function of experiencing each type of IPV and experiencing any type of condom use resistance (continuous variables). In the analytic sample, race/ethnicity (non-Hispanic Caucasian/non-White) and income (less than/greater than $20,000) did not vary as a function of any type of prior IPV victimization or experience of condom use resistance.

IPV Victimization and Unprotected Sex Because of Condom Use Resistance

Of the analytic sample ($N=178$), 39.9% reported a history of physical IPV victimization ($N=71$), 77.5% reported a history of psychological victimization ($N=140$), 45.5% reported a history of sexual coercion ($N=81$), and 62.4% did not use a condom during their last sexual encounter. Table 2 presents women's experiences with various condom use resistance tactics from the age of 14 to the time of the present study. Of the sample, 58.4% of women reported that a male partner used at least one of the tactics to engage them in sexual activity without a condom. The most commonly reported ways that a male partner engaged in condom use resistance were: getting you so sexually excited that you agreed to have sex without a condom (42.7%), getting you really aroused and then starting to have sex without a condom (40.4%), and promising you that they would pull out before they ejaculated (39.9%). As expected, given that CURT is a count variable, the scores did not follow a normal distribution (Gardner, Mulvey, & Shaw, 1995). However, given that our analyses did not investigate causality, as data were cross-sectional, and given our sample size, we followed recommended approaches for analyzing count data. First, the effect of non-normality diminishes with increases in sample size (e.g., Srivastava, 1958; Sullivan & D'Agostino, 1992). Second, although there have been few investigations of count variables in indirect effects equations, Coxe and MacKinnon (2010) conducted a simulation which revealed that Poisson regressions resulted in biased estimates of the true indirect effect. Third, a review of mediation approaches with binary and count variables found that most publications addressing count variables in mediation were derived from causal effects (Geldhof, Anthony, Selig, & Mendez-Luck, 2018), which we did not investigate. In sum, we did not perform log transformations of the CURT scores and used a nonparametric approach to test hypothesized mediations, indicating that our analyses did not assume a normal distribution of CURT scores.

A series of bivariate correlations revealed numerous associations between study variables (see Table 3). First, more frequent engagement in unprotected sex because of condom use resistance from a partner was significantly negatively correlated with sexual assertiveness, $r(177)=-0.19$, $p<.05$. More frequent engagement in unprotected sex because of condom use resistance from a partner was also significantly positively correlated with physical IPV victimization, $r(177)=.25$, $p<.001$. A history of physical IPV victimization was also significantly negatively associated with sexual assertiveness, $r(177)=-.17$, $p<.05$.

More frequent engagement in unprotected sex as a result of condom use resistance from a partner was also significantly positively correlated with reporting a history of psychological IPV victimization, $r(177)=.27$, $p<.001$. No significant association was found between psychological IPV victimization and sexual assertiveness.

More frequent engagement in unprotected sex as a result of condom use resistance tactics from a partner was significantly positively correlated with reporting a history of sexual IPV victimization, $r(177)=.32$, $p<.001$. A history of sexual IPV victimization was also significantly negatively associated with sexual assertiveness, $r(177)=-.29$, $p<.001$.

Sexual Assertiveness as a Mediator of Reproductive Coercion

We proposed that the association between a history of each form of IPV victimization and experiences of unprotected sex because of condom use resistance tactics would be mediated by overall levels of sexual assertiveness (see Fig. 1 and Fig. 2). As psychological IPV victimization failed to demonstrate a significant association with sexual assertiveness, two mediation models were conducted to examine: (1) whether sexual assertiveness mediated the association between physical IPV victimization and the frequency of sexual activity as a result of a partner's condom use resistance; and (2) whether sexual assertiveness mediated the association between sexual IPV victimization and the frequency of sexual activity as a result of a partner's condom use resistance.

For the model examining physical IPV victimization, the overall regression model was significant, $F(1, 176)=5.19$, $p=.02$, $R^2=.03$. The relationship between physical IPV victimization and unprotected sex because of condom use resistance was mediated by sexual assertiveness. The standardized regression coefficient between physical IPV victimization and sexual assertiveness (a-path) was statistically significant ($\beta=-3.75$, SE $=1.65$, $p<.05$), as was the standardized regression coefficient between sexual assertiveness and condom use resistance tactics (b-path) ($\beta=-.09$,

SE = .04, $p < .05$) and the standardized regression coefficient between physical IPV victimization and condom use resistance to avoid using a condom during sex (c'-path) ($\beta = 3.08$, SE = .99, $p < .01$). We tested the significance of the indirect effect using bootstrapping procedures. Unstandardized indirect effects were computed for each of the 10,000 bootstrapped samples. The bootstrapped unstandardized indirect effect was .213, and the 95% confidence interval ranged from .004 to .829. As the confidence interval did not include zero, the indirect effect of physical IPV victimization on experiences of condom use resistance, through sexual assertiveness, was statistically significant.

For the model examining sexual IPV victimization, the overall regression model was significant, $F(1, 176) = 15.61$, $p = .0001$, $R^2 = .08$. The relationship between sexual IPV victimization and unprotected sex because of condom use resistance was not mediated by sexual assertiveness. Specifically, although the standardized regression coefficient between sexual IPV victimization and sexual assertiveness (a-path) was statistically significant ($\beta = -6.22$, SE = 1.57, $p = .0001$), the standardized regression coefficient between sexual assertiveness and condom use resistance tactics (b-path) was not ($\beta = -.06$, SE = .05, $p = .15$). The standardized regression coefficient between sexual IPV victimization and condom use resistance to avoid using a condom during sex (c'-path) was significant ($\beta = 3.87$, SE = .98, $p = .0001$). We tested the significance of the indirect effect using bootstrapped samples. The bootstrapped unstandardized indirect effect was .404, and the 95% confidence interval ranged from −.084 to 1.03. As the confidence interval included zero, the indirect effect of sexual IPV victimization on experiences of condom use resistance, through sexual assertiveness, was not statistically significant (Fig. 2).

Discussion

The primary objective of the present study was to examine intersections between physical, psychological, and sexual IPV, unprotected sex as a result of a partner's use of condom use resistance tactics, and sexual assertiveness among a sample of community college young women. Although the utilization of condom use resistance tactics is well documented among men (Davis et al., 2014a, 2014b), the present study advances the literature by documenting women's experiences of condom use resistance from a partner. This is also the first study to examine women's experiences of unprotected sex because of specific forms of condom use resistance in relation to multiple forms of IPV victimization. The use of a community college sample is also novel.

Community College Women Report That Men Use Several Coercive Strategies to Engage in Unprotected Sex

It was common for women in this sample to describe that a partner successfully avoided using a condom during sexual intercourse (despite their own desire to use one) by using some type of condom use resistance tactic. Specifically, 51.4% of women in the present sample reported that a partner utilized some form of resistance to engage them in sexual activity without a condom, when they wanted to use one, over the past year. These findings are consistent with those reported by Smith (2003), who documented that nearly half of all college students failed to use a condom during sex because of a partner's resistance.

Unprotected Sex Because of Condom Use Resistance Is Common Among Victims of Intimate Partner Violence

Consistent with prior research documenting a positive association between IPV and unprotected sex (e.g., El-Bassel et al., 2003; Maxwell et al., 2015), an association was observed between physical, psychological, and sexual IPV victimization and increased engagement in unprotected sex as a result of a partner's resistance to use a condom (Hypothesis 1). Further, consistent with hypotheses, our study revealed a negative association between sexual assertiveness and physical and sexual IPV (Hypothesis 2). Lower sexual assertiveness was also associated with an increased likelihood of unprotected sex because of condom use resistance (Hypothesis 3). Prior research suggests that women with low levels of sexual assertiveness are at increased risk for negative sexual health outcomes (Noar, Morokoff, & Harlow, 2004; Parks, Collins, & Derrick, 2012; Roberts & Kennedy, 2006; Walker & Messman-Moore, 2011). Women with low levels of sexual assertiveness are also at increased risk for victimization (Stoner et al., 2008). Thus, it is not surprising that negative associations were revealed between sexual assertiveness and women's experience of condom use resistance from a partner, as well as sexual assertiveness and physical and sexual IPV victimization. It is unclear, however, why sexual assertiveness was not associated with psychological IPV victimization. Psychological IPV often occurs along a spectrum of severity, and subsequent analyses may consider examining whether sexual assertiveness varies as a function of the type, duration, and severity of psychological IPV victimization.

Findings are best interpreted considering data suggesting that sexual assertiveness mediated the association between physical IPV and experiences of unprotected sex as a result of condom use resistance (Hypothesis 4). Whereas sexual IPV victimization was associated with sexual assertiveness, and sexual IPV victimization was associated with the frequency

of unprotected sex as a result of a partner's condom use resistance tactics, sexual assertiveness did not mediate the association between sexual IPV and the frequency of unprotected sex as a result of condom use resistance. It should be noted that the assessment of condom use resistance tactics in this study was not specific to the relationship in which IPV occurred. Thus, it is possible that IPV and experience of condom use resistance co-occurred in the same relationship. It is also possible that women's experience of IPV in a prior relationship increased their vulnerability to condom use resistance from a partner in a future relationship. It is also possible that experiencing a prior relationship where condom use resistance was utilized to engage in unprotected sex increased women's vulnerability to IPV in subsequent relationships. Future research utilizing prospective and mixed method designs is needed to explore these possibilities.

These findings nonetheless provide preliminary support for targeting sexual assertiveness as a protective factor against a partner's attempts to engage in unprotected sex against a partner's will. This is promising, as sexual assertiveness is a potentially modifiable skill that can be taught in the context of STI/HIV prevention programs and workshops that seek to prevent dating and sexual violence. Mercer Kollar et al. (2016) documented that intervention that addresses sexual risk reduction can successfully train women to increase their use of assertive communication behaviors in the context of role plays. Importantly, given that fear of violent consequences mediates the association between IPV and condom use (Mittal et al., 2013), it is vital to ensure that women can maintain their safety when negotiating safer sexual experiences. Davis et al. (2014b) note that men who engage in condom use resistance demonstrate a larger pattern of antisocial traits, including negative beliefs about women. If condom use resistance occurs in the context of a sexually abusive relationship, it may be that some types of condom use resistance tactics (i.e., seduction, etc.) are associated with a larger pattern of coercion within the relationship.

Limitations

Findings from this study should be interpreted in light of several limitations. Data were limited to a relatively small sample from several branches of a large Northeastern community college. As such, findings should be generalized to other populations with caution. The present study was also cross-sectional in nature, which weakens the claim that the sexual assertiveness demonstrates a pathway between physical IPV victimization and experiencing condom use resistance. It could be, for example, that experiencing condom use resistance from a partner increases the risk for IPV victimization later in life, as a result of decreased sexual assertiveness following a sexual experience where a partner disregarded one's wishes to use a condom. IPV and condom use resistance were also assessed over the lifetime, rather than in the past year. Further, assessment of condom use resistance tactics was not specific to the relationship in which IPV occurred. The use of a daily diary assessment method would also permit examination of the percent of sexual encounters when condom use resistance occurs, and whether these experiences occur on the same day as IPV. Although the cross-sectional nature of this study presents ambiguity with regard to temporal precedence and causal attributions, the findings nonetheless provide a foundation for further research. It should also be noted that whereas the survey utilized in the present research included behaviorally specific descriptions to assess experiences of condom use resistance from a partner, it is possible that women may not be aware when a partner is engaging in condom use resistance. Finally, a sizeable proportion of women in the study listed "other" as their race. Although is unclear why upwards of 35% of participants listed "other" as their race, attending to the complexity of race and ethnicity in IPV research is imperative.

Research Implications

This study contributed to our understanding of the processes and mechanisms underlying condom use resistance tactics. The overall findings from the present study may have practical implications for developing interventions to inform students of the types of strategies a partner may utilize to coerce them into unprotected sex. Findings also indicate that future research on condom use resistance tactics and behaviors are warranted. Broadly, unprotected sex varies between primary and non-primary partners (John, Walsh, & Weinhardt, 2017), and it would be useful to explore how the experience of condom use resistance varies as a function of partner type. Relationship characteristics also play an important role in condom use (MacDonald, McKenna, & Mouck, 2016), and it would be interesting to bring couples into the laboratory to study the dyadic interactions that influence condom use negotiations among college students. In fact, Senn, Scott-Sheldon, and Carey (2014) found that only relationship-specific condom attitudes predicted unprotected sex among a sample of 270 patients, primarily men (63%) and people of color (> 72%), recruited from a public STD clinic. Scott-Sheldon et al. (2009) also found that women, but not men, were less likely to use a condom when both they and their partner were drinking at the time of sexual activity. Exploring event-level associations of how condom use resistance varies as a function of gender, partner type, and alcohol use is an important area for future inquiry. Increased knowledge on the mechanisms underlying why men are successful in engaging women in unprotected sex (despite their desire to use a condom) could also greatly enhance sexual risk prevention efforts.

Clinical and Policy Implications

In addition to improving understanding of the interactions between a partner's use of condom use resistance tactics and IPV history among women, the present study has implications for sexual risk reduction and violence prevention programs among community college students. Broadly, as suggested by Mittal, Senn, and Carey (2012), the present data highlight the importance of modifying sexual risk interventions to address the contextual factors that influence condom use among women with a history of IPV. Although sexual risk interventions are lacking at community colleges, Markham et al. (2017) suggest that community college students are receptive to interventions that address sexual and dating relationships. Women may be better prepared to respond to condom use resistance when they have an awareness of the types of strategies a partner may use to avoid using a condom. Community college health center and counseling staff may also be trained to talk to patients about the various strategies that students use to avoid using a condom and provide additional information on IPV victimization to students whose partners attempt to avoid using condoms during intercourse.

Conclusion

Given the large number of students enrolling in two-year and community colleges, continued research is needed to document the health risks among this understudied population. As documented by the present study, community college women between the ages of 18–24 often engage in unprotected sex because of a partner's engagement in condom use resistance. Interventions that target intersecting health risks, such as IPV and sexual health, by addressing common risk and protective factors (e.g., sexual assertiveness) may be an especially salient approach to decreasing sexual risk among young adults.

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Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the Institutional Review Board.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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