Published in final edited form as:

Women Health. 2018 ; 58(5): 483–497. doi:10.1080/03630242.2017.1316345.

Words can hurt: The effects of physical and psychological partner violence on condom negotiation and condom use among young women

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Abstract

Physical and psychological intimate partner violence (IPV) are prevalent on college campuses and may affect young women's condom use behavior. This study explored condom negotiation as a mediator of the relation of physical and psychological IPV to condom use among college women. A total of 235 heterosexual college women were recruited during September 2012–May 2013. Participants completed online questionnaires assessing lifetime history of IPV, frequency of condom negotiation, and use of condoms during the last 30 days. Specific forms of psychological IPV were related to less condom use. This association was mediated by condom negotiation, such that those who had experienced psychological IPV were less likely to negotiate condom use, and as a result, less likely to report using condoms in the past 30 days. Campus-based sexual health efforts should consider the relation of psychological IPV to condom negotiation and condom use and offer skills to promote condom negotiation among college women to increase condom use and reduce their risk of sexually transmitted infections.

Keywords

college women; condom negotiation; condom use; intimate partner violence; sexual communication; sexually transmitted infections; sexual risk

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Intimate partner violence (IPV), including physical (e.g., being hit, slapped, or kicked) and psychological (e.g., being insulted or verbally attacked) abuse in romantic relationships, is highly prevalent among women in the United States and related to their sexual risk (Black et al. 2011; Coker 2007). Women with a history of IPV victimization are three times as likely to engage in sexual risk behaviors (Breiding, Black, and Ryan 2008), 2–4 times as likely to have an unintended pregnancy (Gazmararian et al. 2000), and twice as likely to contract a sexually transmitted infection (STI; Hess et al. 2012) than women without a history of IPV. Given that most women with a history of IPV victimization report victimization beginning before 25 years of age (Black et al. 2011), it is important to understand the association between IPV and condom use among young women to reduce the rate of unintended pregnancies and STIs in this high-risk population.

Approximately 76percent–86percent of female high school graduates enroll in college, and estimates suggest that young women account for 10 million of the college students enrolled in the United States (Lopez and Gonzalez-Barrera 2014; United States Census Bureau 2010). Recent research and media attention have started to focus on the sexual health of college women as it relates to sexual assault on college campuses (Gray 2015; Maiuro 2015). However, college women are rarely the focus of IPV-related research, although IPV experiences frequently occur among these women (Sandberg et al. 2016; Sutherland, Fantasia, and Hutchinson 2015; Stein, Tran, and Fisher 2009; Tsui and Santamaria 2015). In fact, estimates of the 12-month incidence of physical and psychological IPV among college women range from 2percent to 14percent and 11percent to 55percent, respectively (American College Health Association [ACHA] 2014; Smith, White, and Holland 2003). The link between IPV and sexual risk among college women has also remained largely unexplored, although young college women have high incidence rates of STIs (James, Simpson, and Chamberlain 2008). In 2012, women between the ages of 15 and 24 years had the highest rates of chlamydia and gonorrhea compared to women of other age groups and men (Centers for Disease Control and Prevention [CDC] 2013). Furthermore, empirical research has suggested that only 27percent of college women report consistently using condoms, which implies a risk for unintended pregnancy and contraction and transmission of STIs among the 73percent who do not (ACHA 2014). Taken together, these statistics suggest that college women may be particularly vulnerable to IPV, unintended pregnancy, and STIs. However, little research has examined the association between college women's experiences of physical and psychological IPV and their condom use behaviors. Furthermore, no research has empirically explicated mediating mechanisms that may improve our understanding of the IPV-condom use association among college women to reduce the prevalence of unintended pregnancy and STIs.

Condom negotiation, or the process of encouraging one's partner to use a condom prior to sex, may play an important role in the association between IPV and condom use. Condom negotiation includes a variety of strategies: conveying risk information (e.g., telling one's partner that using a condom will protect them from STIs), using deception (e.g., making up a reason why one wants her partner to use a condom), using seduction (e.g., getting one's partner sexually excited and then taking out a condom), withholding sex (e.g., making it clear that one will not have sex if condoms are not used), directly requesting condoms (e.g.,

making a direct request to use condoms), and relationship conceptualizing (e.g., telling one's partner that it would really mean a lot to the relationship if he would use a condom) to promote condom use (Noar, Morokoff, and Harlow 2004, see Table 1). Condom negotiation has been strongly associated with condom use among college women (Holland and French 2011; Noar, Morokoff, and Harlow 2002). Further, women with (versus without) a history of IPV exposure have been less likely to negotiate or use condoms (Campbell et al. 2008; El-Bassel et al. 2005).—Women who have experienced IPV may negotiate condoms less often because of a sense of disempowerment or fear of negative consequences of condom negotiation based on previous experiences of victimization (Epperson et al. 2009). As a result, IPV-experienced women may be less likely to negotiate or use condoms, increasing the risk of unintended pregnancy and STIs.

The purpose of this study was to address critical gaps in the research by examining the relations among physical IPV, psychological IPV, condom negotiation, and condom use among college women engaging in sex with non-casual sex partners (i.e., someone with whom the participant was previously or currently involved in a committed or steady dating relationship). Negotiating condom use with a non-casual sex partner may be especially difficult for women because negotiation is often seen as a sign of distrust of their sexual partner and may threaten their partnership (Bowleg, Lucas, and Tschann 2004; Harvey et al. 2002). Therefore, we focused on college women's experiences with their current non-casual partner. We hypothesized that having a history of physical or psychological IPV would be related to condom use during the last 30 days and that this association would be mediated by condom negotiation during the last 30 days. Specifically, we expected women who reported a history of either physical or psychological IPV would be less likely to negotiate condom use, and, as a result, less likely to use condoms during the last 30 days.

Method

Setting and study sample

The current study was part of a larger study examining correlates of sexual behavior among college students. Participants were students in undergraduate psychology courses at an urban, commuter university in the southeastern United States. All students who were over the age of 18 years and able to understand English were eligible to participate. Overall, 738 male and female students (4.5percent of the total student population) completed an online survey. Given that unprotected heterosexual intercourse is the main mode of STI transmission among women (CDC 2016), the current study focused on the association between IPV and condom negotiation among at-risk (i.e., sexually active, not married), heterosexual women. Therefore, of the total sample, 162 were excluded because they identified as male, four were excluded because they identified as transgender, and forty-nine were excluded because they did not report their sex. Of the women in the sample, those who self-identified as lesbian or bi-sexual ($n = 29$), those reported that they had not had sex in the last 30 days with a non-casual partner ($n = 100$), and those who were married ($n = 31$) were excluded. Lastly, individuals who had missing data on the dependent measure (i.e., condom use; $n = 245$) were also excluded. Therefore, 235 participants were included in the current analyses.

Procedures

Participants were recruited from undergraduate psychology courses by study staff who presented the details of the study to students. Interested students completed the informed consent process, which was presented online and provided information about the purpose of the study (i.e., to examine and understand relationships and sexual behavior among college students), the requirements for participation (i.e., complete two online surveys), the risks (i.e., collection of sensitive information), the benefits (i.e., helping researchers understand and intervene to help students have healthier relationships), and the compensation (i.e., sexual health resources and extra credit points). Students who agreed to participate provided an electronic signature to complete the consent process and completed an initial assessment online. Approximately four weeks after the initial assessment, participants completed a follow-up assessment online. Only data from the baseline assessment were used in the current analyses. Participants received information about sexual health resources and course credit for their participation. All procedures were approved by the university's institutional review board.

Measures

Demographics and sexual history—Participants were asked to report their age, race, ethnicity, gender, and sexual orientation. Participants were also asked to indicate: how old they were when they had their first episode of consensual vaginal, oral, or anal sex; how many sexual partners they had had in their lifetime; and if they had ever been tested for a sexually transmitted infection. Demographic factors were explored as covariates of condom use. In addition, sexual history questions were then examined as covariates, given their demonstrated association with condom use (Civic 2000; Critelli and Suire 1998; Sandfort et al. 2008).

Condom use—An online timeline follow-back interview (TLFB; Sobell and Sobell 1992; Weinhardt et al. 1998) was used to assess participants' condom use in the past month. Participants were presented with a calendar that included the beginning and end dates of the reporting period. Participants indicated all days on which they had sexual intercourse. For every day that sexual intercourse occurred, participants reported whether they used a condom. The proportion of condom use was calculated by dividing the number of days they used a condom during sexual intercourse by the total number of days they engaged in sexual intercourse with a non-casual partner, given that condom use is less prevalent among women who have sex with non-casual partners.

Condom negotiation—For every day that sexual intercourse was reported on the TLFB, participants reported whether they used any of six condom negotiation strategies delineated in the Condom Influence Strategy Questionnaire (Noar, Morokoff, and Harlow 2002). Evaluated strategies were: conveying risk information, using deception, using seduction, withholding sex, directly requesting condoms, and relationship conceptualizing. We generated a variable dichotomized as the use of any negotiation strategies versus none. We calculated the proportion of condom negotiation by dividing the number of days they negotiated condom use during sexual intercourse by the total number of days they engaged in sexual intercourse.

Lifetime history of physical and psychological IPV—Questions adapted from the Hurt-Insult-Threaten-Scream Scale (HITS; Sherin et al. 1998) assessed participants' lifetime exposure to different forms of physical and psychological IPV ($\alpha = 0.78$). To assess lifetime exposure to physical IPV, participants responded to the item "In your lifetime, has a romantic partner ever physically hurt you?" To assess lifetime exposure to psychological IPV, participants responded to the following questions: "In your lifetime has a romantic partner ever threatened you with harm?" "In your lifetime has a romantic partner ever insulted/talked down to you?" and "In your lifetime has a romantic partner ever screamed or cursed at you?" Responses were dichotomized for each item. We focused on psychological IPV because, whereas there is abundant research on the influence of physical and sexual IPV on condom use, a relative dearth of research has identified the role of psychological IPV, such as being threatened, insulted, or screamed at by a romantic partner, on condom negotiation and use (Coker et al. 2002; Overstreet et al. 2015). Furthermore, research has yet to explicate the unique role of *specific* forms of psychological IPV, such as being threatened, insulted, or screamed at by a partner, in condom negotiation and use among college women.

Analytic approach

Descriptive analyses were performed, and bivariate analyses were conducted to examine race, age, age of vaginal sexual debut, number of lifetime partners, and lifetime history of STI testing, and birth control as potential covariates. Variables that were significantly associated with the dependent variable ($p < .05$) were included in subsequent analyses. Next, a mediation model explored whether condom negotiation mediated the association between physical IPV exposure and condom use, after controlling for covariates and other forms of psychological IPV. Psychological IPV was entered as a covariate in this model because of high rates of co-occurring physical and psychological IPV (Sullivan et al. 2012). Another series of models examined the mediating effect of condom negotiation on the association between each form of psychological IPV (i.e., threatened with harm, insulted/talked down to, or screamed/cursed at by a partner) and condom use, controlling for covariates and physical IPV. Physical IPV was entered as a covariate in this model because of the high rate of co-occurring physical and psychological IPV (Sullivan et al. 2012). No interactions were explored.

Mediation models were conducted based on the PROCESS procedures, which use ordinary least squares regression and bootstrapping methods to estimate the direct and indirect effects of the hypothesized associations (Hayes 2012). A bootstrapping sample of 5,000 was used for estimating the standard errors of parameter estimates and the bias-corrected 95percent confidence intervals of the indirect effects to determine mediation. Confidence intervals that did not contain zero indicated a statistically significant effect. The R-squared statistic was used to assess model fit (Keith 2006).

Results

Description of sample

Participants' ages ranged from 18 to 33 years ($Mean = 19.63$, $SD = 2.24$ years, Table 1). Approximately 47percent ($n = 110$) of participants were African-American, 45percent ($n =$

105) were non-Hispanic white, and 3percent ($n = 7$) were Hispanic. In the 30 days prior to study entry, 50percent ($n = 121$) of participants endorsed using condoms, and 30percent ($n = 71$) reported negotiating condom use. During this time, participants reported using condoms during 43percent of the days that they had sex and negotiating condom use during 20percent of the days that they had sex. Twenty-three percent ($n = 50$) of participants reported experiencing physical IPV in their lifetime. Eighteen percent ($n = 39$) of participants reported being threatened with harm, 48percent ($n = 105$) reported being insulted or talked down to, and 61percent ($n = 134$) reported being screamed or cursed at by a romantic partner in their lifetime. Of note, participants who had missing data on the dependent variable, condom use, had more lifetime partners than those without missing data ($p < .01$). Of the covariates that were explored, age of vaginal sexual debut, number of sexual partners, birth control, and lifetime history of STI testing were related to condom use ($ps < 0.01$); therefore, these variables were controlled in subsequent analyses.

Mediation analysis

First, analyses were conducted to determine whether condom negotiation mediated the association between physical IPV and condom use (Hayes 2012). Birth control, age of vaginal sexual debut, number of sexual partners, history of STI testing, and the different forms of psychological IPV were entered as covariates. The direct relations of physical IPV to condom use ($\beta = -0.14$, $SE = 0.09$, $p = 0.11$, [95percent CI: -0.316 , 0.0308]) and condom negotiation ($\beta = 0.01$, $SE = 0.8$, $p = 0.90$, [95percent CI: -0.140 , 0.161]) were non-significant. The indirect relation of physical IPV to condom use through condom negotiation was non-significant ($Effect = 0.01$, $SE = 0.04$, $R^2 = 0.21$, [95percent CI: -0.0763 , 0.0984]).

Analyses were then conducted to examine whether condom negotiation mediated the associations between each form of psychological IPV (i.e., being threatened with harm, insulted/talked down to, or screamed/cursed at by a romantic partner) and condom use (Table 2). In each of the three adjusted models, one form of psychological IPV was entered as an independent variable and condom use was entered as the dependent variable. The remaining forms of psychological IPV, physical IPV, birth control, age of vaginal sexual debut, number of sexual partners, and history of STI testing were entered as covariates. Being screamed/cursed at by a romantic partner was the only form of psychological IPV that was significantly associated with condom negotiation, ($\beta = -0.13$, $SE = 0.06$, $p = 0.04$, [95percent CI: -0.255 , -0.0077]), after controlling for all covariates. Although, it was not significantly associated with condom use ($\beta = -0.12$, $SE = 0.07$, $p = 0.10$, [95percent CI: -0.265 , -0.0221]). However, the indirect relation of being screamed or cursed at by a romantic partner on condom use through condom negotiation was statistically significant ($Effect = -0.07$, $SE = 0.04$, $R^2 = .21$ [95percent CI: -0.150 , -0.0071]). Those who endorsed ever being screamed/cursed at by any romantic partner were less likely to report negotiating or using condoms with their current partner than those who had not been screamed/cursed at by a romantic partner.

Discussion

This study examined condom negotiation as a mediator of the relations of physical and psychological IPV exposure to condom use among college women in non-casual sexual relationships. In our sample, the rates of condom negotiation and use were low, consistent with previous research (American College Health Association 2014). Physical and psychological IPV were surprisingly prevalent and more reflective of national estimates of the general population, regardless of education or socioeconomic status (Black et al. 2011). Our findings extend existing literature by: (1) suggesting that physical and psychological IPV were differentially related to condom negotiation and condom use among young college women and (2) identifying condom negotiation as a mechanism through which being screamed/cursed at by a romantic partner was related to condom use.

As compared to physical or sexual IPV, psychological IPV is often perceived as more nebulous and thus difficult to define or evaluate its relation to behavior. Our findings highlight the importance of distinguishing between the various forms psychological IPV and recognizing its powerful relation to sexual decision-making. We found that lifetime experiences of being screamed/cursed at by a romantic partner, as a specific form of psychological IPV was associated with less frequent condom negotiation, which were associated with less condom use with a current non-casual sex partner. These findings suggested that college women who experienced seemingly more subtle forms of psychological IPV in the context of romantic relationships may have been more likely to engage in sex without condoms with other partners than college women without such histories because they are less likely to negotiate condom use. This finding also highlights the nuanced nature of the association between psychological IPV and condom negotiation. Previous research has established that fear of general verbal abuse was negatively related to women's ability to negotiate condom use (Raj, Silverman, and Amaro 2004). However, our findings extend previous research by identifying screaming and cursing as a specific form of psychological IPV that may hinder condom negotiation among young college women. In addition, our study empirically demonstrates that condom negotiation may account for the adverse relation of a history of psychological IPV to condom use, which increases college women's risk of unintended pregnancy and STIs.

This discussion is extremely timely. Given the increased attention to sexual assault on college campuses (Gray 2015; Maiuro 2015), many colleges have been focused on training students how to discuss sex actively, continuously, and explicitly with their partners prior to intercourse. This focus on explicit communication should also be applied to STI preventive efforts. Interventions for college students should also help women actively discuss sex, including condom negotiation with their partners to prevent STIs and unintended pregnancy. STI interventions, as well as efforts to prevent sexual misconduct on college campuses, should address the impact of psychological IPV on women's ability or desire to negotiate condom use and be careful not to overlook verbal forms of psychological IPV that often go unnoticed, such as being screamed at by a romantic partner. These programs should educate both college men and women about what constitutes psychological IPV and educate them about the negative outcomes related to psychological IPV. In addition, programs that aim to promote condom negotiation should consider helping college women develop a repertoire of

specific strategies for negotiating condoms with their partners. For example, programs could implement skill-building exercises that incorporate the use of seduction to encourage one's partner to use a condom (Sanderson 1999). Seduction, unlike directly requesting a condom, is less assertive and may be more attractive to college women who fear negative consequences of condom negotiation as a result of a history of psychological IPV.

Our findings suggested that having a history of physical IPV was not related to condom negotiation or use in this study. This finding may be partially attributable to our measurement of physical IPV, which consisted of one item that asked if women had ever been physically hurt by a romantic partner. While this measure has been validated (Sherin et al. 1998), more comprehensive measures of physical IPV exist that may have rendered different findings. Although our finding related to physical IPV is counterintuitive, it is consistent with previous research that indicates that women's fear related to condom negotiation is often related to the anticipation of partners' verbal abuse and infidelity in response to condom negotiation rather than physical abuse (Raj, Silverman, and Amaro 2004). It should also be noted all the women who reported a history of physical IPV also reported a history of psychological IPV. Therefore, it is plausible that the psychological pain that accompanies physical IPV may be the key factor that hinders women from negotiating condom use with a current partner. Future research should explore this and other hypotheses that may identify mechanisms that account for the relation of psychological IPV to condom negotiation and use.

Limitations

This study fills important gaps in the literature, providing evidence for condom negotiation as a mechanism that links psychological IPV to lower condom use. However, several noteworthy limitations should be addressed in future research. First, this study measured lifetime history of IPV exposure; thus, it is not known whether IPV was occurring within the current sexual partnership. We measured IPV using single item indices, in the interest of time and efficiency. Other, more comprehensive measures of physical and psychological IPV may demonstrate different associations between IPV and condom negotiation and use. Thus, future research should include a more in-depth assessment of IPV, including assessment of forms of IPV not assessed here, such as sexual IPV and unwanted pursuit behaviors. Second, this study was cross-sectional, and thus, causality could not be inferred. Third, participants' knowledge about their partner's STI or HIV status was not obtained. Therefore, it is unknown whether the participants were engaging in sex with partners that they perceived as safe because of their knowledge of their sexual health. Future research should assess information collected from both partners (i.e., dyadic data) to understand the condom negotiation process more fully among young college women and their male partners. Fourth, the generalizability of these findings should also be considered. The current study included a small proportion of undergraduate students at a university in the southeastern United States; therefore, the generalizability of these findings is limited. However, it should be noted that the IPV rates among women in this sample were high, and condom use and negotiation were low, indicating the vulnerability of this population to IPV and sexual risk and the importance of examining the sexual behavior of college women. Relatedly, given that the primary mode of HIV and STI transmission for college women is heterosexual sex, this study focused on a

small subset of our sample who was sexually active, not married, heterosexual, and had complete data. This yielded a relatively small sample, which may have affected our ability to detect statistical significance for some associations. In the future, these associations should also be explored in a larger sample. Lastly, this study did not assess the relation of intra-individual factors, such as motivation to use condoms or condom use by one's male partner without the need for negotiation, to condom negotiation and condom use.

Conclusions

Despite these limitations, this study has implications for unintended pregnancy and STI prevention programs for college women. Considering the importance of condom negotiation in the association between psychological IPV and condom use, sexual health programs should address the relation of often overlooked forms of psychological IPV to condom negotiation. Women with histories of psychological IPV may experience the same fears related to condom negotiation as women with physical and sexual IPV histories. Therefore, it is important to address these fears and offer skills to promote condom negotiation among these women and, ultimately increase condom use and reduce their risk of unintended pregnancy and STIs.

Acknowledgments

Funding

This research was supported by grants from the National Institute of Mental Health (T32MH020031; R25MH087217), the National Institute on Drug Abuse (T32DA019426; K23DA039327), and the Southern Regional Education Board Dissertation Award.

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Figure 1.

Meditation analysis: Standardized regression coefficients and indirect effect for the associations among being screamed/cursed at by a romantic partner and condom use as mediated by condom negotiation.

Note: $*p < .05$, $***p < .001$, Total effect = -0.19 , $SE = 0.08$, $p = 0.02$, [95percent CI: -0.3475 , -0.0352], $r^2 = 0.21$.

Table 1

Demographic characteristics of sample.

Characteristic	Mean/N (SD/%)
Age, years	19.63 (2.24)
Race	
African American	110 (46.81)
White	105 (44.68)
Asian	2 (0.85)
American Indian/Alaskan native	1 (0.43)
Native Hawaiian/other Pacific islander	1 (0.43)
Multiracial/other	16 (6.81)
Ethnicity	
Hispanic	7 (2.99)
Non-hispanic	232 (97.02)
Classification	
Freshman	134 (57.02)
Sophomore	60 (25.53)
Junior	25 (10.64)
Senior	16 (6.81)
Parent's annual household income	
Unemployed or disabled	17 (7.23)
\$9, 999 or under	5 (2.13)
\$10,000–\$19,999	13 (5.53)
\$20,000–\$29,999	19 (8.09)
\$30,000–\$39,999	12 (5.11)
\$40,000–\$49,999	25 (10.64)
\$50,000–\$74,999	35 (14.89)
\$75,000–\$99,999	20 (8.51)
\$100,000–\$199,000	32 (13.62)
\$200,000 or above	1 (0.43)
Did not know	56 (23.83)
Birth control use	
No	77 (34.84)
Yes	144 (65.16)
Age (years) of sexual debut	
Vaginal sex	16.29 (1.59)
Oral sex	16.80 (1.82)
Anal sex	17.90 (1.97)
Number of lifetime sex partners	4.64 (4.60)
Lifetime history of STI testing	
No	68 (30.77)
Yes	153 (69.23)

Characteristic	Mean/N (SD/%)
Physical intimate partner violence	
No	169 (77.17)
Yes	50 (22.83)
Psychological intimate partner violence	
No	183 (83.56)
Yes	36 (16.44)
Rate of condom use (last 30 days)	.44 (0.47)
Rate of condom negotiation (last 30 days)	.20 (0.36)

Note: STI = Sexually transmitted infection.

Table 2

Summary of mediation analyses (5000 bootstrap samples; $N = 200$).

Independent variable (IV)	Mediating variable (M)	Dependent variable (DV)	Beta (se) IV on M (a)	Beta (se) M on DV (b)	Direct beta (se) (c')	Indirect beta (se) (a x b)	95percent CI	Total beta (se) (c)
Physical IPV	Condom negotiation	Condom use	0.010 (0.076)	0.532*** (0.083)	-0.143 (0.088)	-0.005 (0.044)	-0.076-0.098	-0.137 (0.097)
Threatened with harm	Condom negotiation	Condom use	0.014 (0.080)	0.532*** (0.083)	0.010 (0.092)	0.008 (0.048)	-0.089-0.101	0.105 (0.101)
Insulted	Condom negotiation	Condom use	0.0435 (0.064)	0.532*** (0.083)	-0.026 (0.073)	0.0232 (0.032)	-0.034-0.092	-0.003 (0.81)
Screamed or cursed at	Condom negotiation	Condom use	-0.131* (0.063)	0.532*** (0.083)	-0.122 (0.073)	-0.070* (0.036)	-0.150-0.007	-0.1913** (0.079)

Note. All coefficients are reported as unstandardized estimates. All models adjusted for use of birth control, age of vaginal sexual debut, number of sexual partners, and lifetime history of sexually transmitted infection testing.

* $p < .05$,

** $p < .01$.

*** $p < .001$.