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Young Men's Condom Use Resistance Tactics: A Latent Profile Analysis

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Abstract

Research suggests that many men have used a variety of tactics to avoid using a condom when having sex with a woman. Guided by previous work demonstrating that men's use of coercive condom resistance tactics was predicted by negative attitudes toward women, inconsistent condom use, multiple partners, and sexual sensation seeking, the current study used latent profile analysis (LPA) to determine whether similar constructs were associated with a variety of resistance tactics. A community sample of 313 moderate drinking men participated, of whom 80% reported employing at least one condom use resistance tactic since adolescence. The LPA revealed three classes of men. In general, men with the least negative beliefs about women, low levels of sexual sensation seeking and impulsivity, and positive beliefs about condoms (Condom Positive/Low Hostility) reported less use of resistance tactics than men with moderate sexual sensation seeking and impulsivity, negative beliefs about condoms, and moderate (Condom Negative/Moderate Hostility) or high (Condom Negative/High Hostility) negative attitudes about women. The classes also differed in terms of their sexual behaviors. This study demonstrated that sexual risk behavior interventions should not only address the tactics through which men resist using condoms but also tailor these efforts to men's individual characteristics.

Keywords

condom use resistance; condom attitudes; latent profile analysis; hostility towards women; sexual sensation seeking

Despite advances in prevention programs targeting increased condom use in young adults, condoms are used inconsistently and infrequently by the majority of young men and women

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in the United States (Centers for Disease Control and Prevention [CDC], 2009). For instance, findings from the National Survey of Sexual Health and Behavior indicate that only 46.9% of men aged 18 – 24 and 53.1% of men aged 25 – 29 reported using condoms during their most recent vaginal intercourse with a casual sex partner (Reece et al., 2011). Because the rates of sexually transmitted infections (STIs), such as chlamydia, gonorrhea, and syphilis continue to rise among young adults (CDC, 2010), continued research into the factors underlying inconsistent condom use may illuminate intervention targets that ultimately prove more effective for increasing condom use.

Efforts to encourage young adults (aged 18 – 29) to use condoms may be hampered by the "culture of resistance to condom use" in this population (Measor, 2006, p. 393). For example, in a study of male and female Latino youth aged 16 – 22 years old, 44% of the participants reported trying to avoid condom use on at least one occasion during the past month (Tschann, Flores, de Groat, Deardorff, & Wibbelsman, 2010). Such findings imply that although some occasions of condom non-use may be due to condom inconvenience or unavailability (Carter, McNair, Corbin, & Williams, 1999; Crosby, Sanders, Yarber, Graham, & Dodge, 2002), other instances are the result of active avoidance or resistance towards using condoms by one or both of the sexual partners. One study of college students aged 18 – 28 revealed that almost half of the sample (44% of men and 49% of women) reported forgoing condom use at least once since the age of 16 due to a partner's influence (Smith, 2003). Although men and women report similar reasons for disliking condom use (Crosby, Milhausen, Yarber, Sanders, & Graham, 2008), extant findings suggest that men are more likely than women to attempt avoiding condom use even when their partners would like to use a condom (Carter et al., 1999; DeBro, Campbell, & Peplau, 1994). Although Oncale and King (2001) found no differences in the percentages of undergraduate heterosexual men and women who reported having attempted to dissuade their partners from using condoms, they did find that women were significantly more likely than men to report that their partners had attempted to dissuade them from condom use. In particular, DeBro and colleagues found that in a college sample (aged 18 – 33), men were more likely than women to resist condom use through strategies involving seduction, informing their partners about their low risk level, and promising rewards or positive consequences for condom nonuse. Thus, the current study focused on the strategies and tactics young men employ to resist using a condom with their female sex partners.

As noted above, research efforts exploring men's resistance to condom use have found that some men employ a variety of strategies and tactics to resist using condoms with their female partners who want to use one. Moreover, some of these strategies are similar to those used to negotiate *for* condom use (Noar, Morokoff, & Harlow, 2002). For example, in a focus group study of single men aged 21–30 years old, participants revealed a wide range of condom use resistance approaches (Author Citation, in press-a), including seduction (e.g., getting their partner so aroused that she agreed to have intercourse without a condom), physical sensation arguments (e.g., telling their partner that sex is not as enjoyable with a condom on), emotional manipulation (e.g., trying to make the woman feel guilty for using a condom), relationship-based reasons (e.g., noting that they should trust one another enough not to use a condom), risk reassurance (e.g., assuring their partner they do not have any

STIs), withholding sexual activity (e.g., refusing to have sex with a condom), deception (e.g., pretending that they have a latex allergy and cannot use condoms), condom sabotage (e.g., surreptitiously removing or breaking the condom), and physical threat or force (e.g., harming or threatening to harm the woman if she insisted on using a condom). The participants in this study viewed using physical force to obtain unprotected sex as unacceptable; however, the majority reported that all other condom use resistance tactics were viewed as typical, normative behavior for men their age.

Corroborating these findings, a nationwide survey of young heterosexual men found that just over one-third reported having successfully used verbal coercion and/or physical force to obtain unprotected sex with a partner who wanted to use a condom (Author Citation, in press-b). Moreover, 31% of the sample reported having successfully used these tactics on more than one occasion. Research with girls and young women has also suggested that some young men engage in a variety of tactics to resist condom use. For example, during focus groups, adolescent African American girls aged 14–17 reported that their partners used emotional manipulation as well as physical or sexual threats or actual violence to obtain unprotected sex. Moreover, they also noted that some men engaged in condom sabotage, noting that some of their male partners surreptitiously removed a condom before intercourse (Teitelman, Tennille, Bohinski, Jemmott, & Jemmott, 2011).

Factors Predicting Condom Use Resistance

In order to develop effective targeted prevention and intervention efforts regarding men's resistance of condom use, more information is needed about the predictors of such behaviors. One theoretical model that has been successfully applied to the prediction of men's coercive and forceful condom resistance tactics (Author Citation, in press-b; Purdie, Abbey, & Jacques-Tiura, 2010) is the Confluence Model (Malamuth, Sockloskie, Koss, & Tanaka, 1991). In this model, originally used to predict sexually aggressive behavior, two separate pathways are theorized: negative attitudes and hostility towards women and impersonal sex. Additionally, the interaction, or confluence, of these two pathways, is expected to predict the highest levels of sexual aggression.

In applying this model to predicting the use of coercive tactics to obtain sex without a condom, Author Citation (in press-b) expanded the model to include predispositional tendencies and attitudes related to condom use. Specifically, the expanded model included sexual sensation seeking (a general pattern of seeking out novel and exciting sexual activities; Kalichman & Rompa, 1995) and negative attitudes about condoms' effects on sexual pleasure, both of which have been shown to relate to high risk sexual behavior (Conley & Collins, 2005; Hendershot, Stoner, George, & Norris, 2007; Sheeran, Abraham, & Orbell, 1999). The final model revealed three primary pathways that predicted men's use of coercive and forceful condom use resistance tactics. In the first pathway, stronger endorsement of negative attitudes towards women (including rape myth acceptance and hostility towards women) directly predicted greater engagement in coercive condom use resistance. The second pathway revealed that stronger attitudes about condoms interfering with sexual pleasure predicted more frequent inconsistent condom use, which in turn predicted increased coercive condom use resistance. In the third pathway, sexual sensation

seeking was associated with more inconsistent condom use as well as a higher number of sexual partners, both of which were related to more frequent use of coercive condom use resistance tactics. These findings suggest that attitudes about women, attitudes about condoms, and predispositional tendencies towards sexual spontaneity and novelty may each contribute to men's coercive condom use resistance.

Previous research has established some of the risk factors for the use of *coercive* condom use resistance strategies. It is currently unknown, however, whether these previously identified risk factors would also predict other types of condom use resistance tactics. Thus, in the present study, we aimed to address this knowledge gap. Moreover, instead of using a variable-based analytic approach such as structural equation modeling, we explored these relationships using a person-oriented analytic technique, namely Latent Profile Analysis (LPA). LPA is a data analytic approach that allows for the identification of the most common patterns of risk factors in the data. Once these naturally occurring classes of risk factors are ascertained, one may test if these classes differ on outcomes of interest. Therefore, we used this approach to identify typical profiles based on patterns of attributes and personality characteristics that naturally emerged from the data and then determined which profiles were associated with engagement in various condom use resistance tactics. The knowledge gained through the use of LPA compared to a more traditional variable-centered approach may be beneficial for more effectively tailoring future intervention and prevention efforts.

Study Hypotheses

Hypotheses regarding LPA classes

In the current study, we sought to first identify classes of men based on their endorsement patterns of negative attitudes towards women, attitudes about condoms, and impulsive/sensation seeking tendencies using LPA. This approach was necessarily exploratory, though we expected to find several different profiles of men, with one likely characterized by greater negative attitudes toward women, negative attitudes about condoms, and greater impulsive and sensation seeking tendencies compared to the other profiles. We also expected another profile to be the opposite of the first: less negative attitudes about women, more positive attitudes about condoms, and less impulsive and sensation seeking tendencies than the other profiles. We then assessed how these endorsement patterns related to men's self-reported use of a wide range of condom use resistance tactics.

Hypotheses regarding condom use resistance tactics

We predicted that men who reported higher levels of impulsivity and sexual sensation seeking, as well as more negative attitudes about condoms, would report using all condom use resistance tactics more frequently than men who were less impulsive or sensation seeking or who reported more positive attitudes about condoms. Further, we predicted that condom sabotage, deception, and physically forceful condom use resistance tactics would be more frequently used by men with stronger negative attitudes towards women. Additionally, we conducted analyses examining how the LPA profiles related to other sexual behaviors to determine whether or not the pattern of results was consistent with those for the condom use

resistance tactics, as well as to inform intervention efforts targeting sexual risk behaviors other than condom use resistance.

Method

Study Design

This study investigated condom use resistance in three study phases: a baseline survey phase, an experimental phase involving alcohol administration, and a follow-up survey phase. Only results from the baseline survey phase of the study are presented here.

Participants

Participants were recruited from an urban community using online and print advertisements placed in locations and media outlets targeted to younger audiences. The advertisement solicited single male drinkers of all ethnicities, aged 21 – 30, to participate in a research study on male-female social interactions. Men were eligible if they reported being between the ages of 21 – 30 years, were moderate drinkers, were interested in sexual activity with women, and had vaginal or anal intercourse without a condom at least once in the past year. Due to the requirements of the alcohol administration laboratory protocols in the experimental phase of the study, callers were excluded on the basis of 1) being under the legal drinking age; 2) medical conditions or prescription medications that were contraindicated with alcohol use; and/or 3) a history of negative reactions to alcohol or problem drinking. Of those who participated in the screening process, 53.0% did not meet our eligibility criteria.

Participants included 313 men (*M* age = 25.5, *SD* = 3.5). The majority of the sample self-identified as Caucasian (67.4%); 7.8% self-identified as African American/Black, 8.1% as Asian/Pacific Islander, 6.5% as Hispanic/Latino, 0.7% as Native American, and 15.8% as Multiracial or other. Full- or part-time employment was reported by 49.7%, and most of the men (82.1%) had at least some college education. Full- or part-time student status was reported by 33.8%, and the majority of participants (71.6%) reported a yearly income of $40,999 or below (47.6% $20,999 or below).

Procedures

Interested men called the laboratory, and research assistants described the study and screened the callers for eligibility. Eligible and interested participants were then scheduled for a laboratory session. Upon arrival at the laboratory, participants provided informed consent and completed the survey measures in a private room by directly entering their responses into a computer using data collection software (Datstat Illume, version 4.7). Participants were compensated $15 per hour for their time spent in the laboratory. On average, participants completed the survey phase of the study in 1 hour and 39 minutes. All procedures and measures were approved by the university's Human Subjects Division institutional review board prior to data collection.

Measures

In addition to the demographic items reported above, the current analyses included the following additional measures of personality, attitudes, and behaviors.

Rape myth attitudes—We administered the 19-item Rape Myth Scale developed by Lonsway and Fitzgerald (1995) which assessed beliefs and attitudes about rape that are used to justify sexual aggression towards women. Some of the items included, “If a woman is raped, often it’s because she didn’t say ’no’ clearly enough” and “When men rape, it is because of their strong desire for sex.” All items were scored on scales from 1 (*strongly disagree*) to 7 (*strongly agree*) and were averaged to create a total score; a higher score was associated with greater rape myth acceptance. In the present study the scale had strong internal reliability (α = .89).

Hostility towards women—The Hostility towards Women Scale (Lonsway & Fitzgerald, 1995) was a revised version of the original Hostility towards Women items developed by Check, and colleagues (Check, Malamuth, Elias, & Barton, 1985). The 10-item scale included items such as “I think that most women would lie just to get ahead” and “Sometimes women bother me by just being around.” Response options ranged from 1 (*strongly disagree*) to 7 (*strongly agree*). Items were averaged and higher scores were associated with greater hostility. Reliability in our sample was good (α = .85).

Sexual sensation seeking—We administered the Sexual Sensation Seeking subscale of the Sensation Seeking Questionnaire (Kalichman & Rompa, 1995), which included 11 items such as “I like wild ‘uninhibited’ sexual encounters” and “I like to have new and exciting sexual experiences and sensations.” Participants responded on scales ranging from 1 (*not at all like me*) to 4 (*very much like me*). Items were averaged with higher scores indicating greater sexual sensation seeking. The scale demonstrated adequate reliability (α = .79).

Impulsivity—To measure impulsivity we used the impulsiveness subscale from the Eysenck Personality Scale (Eysenck, Pearson, Easting, & Allsopp, 1985) which included such items as “Do you often do things on the spur of the moment?” and “Do you need to use a lot of self-control to keep out of trouble?” Participants responded to the 18 items with a yes or no response. The answers were summed such that greater impulsiveness was associated with a higher score. In our sample the impulsiveness subscale had good reliability (α =.80).

Condom attitudes—In order to assess condom use attitudes we administered the UCLA Multidimensional Condom Attitudes Scale (Helwig-Larson & Collins, 1994). This measure was comprised of multiple subscales intended to examine independent indicators of condom use attitudes rather than a global/general attitude. We used the Reliability/Effectiveness (e.g., “Condoms do not offer reliable protection”), Pleasure (e.g., “Condoms ruin the sex act”), and Identity Stigma (e.g., “Men who suggest using a condom are really boring”) subscales in the present analyses. The questions were rated on scales that ranged from 1 (*strongly disagree*) to 7 (*strongly agree*) with negative items reverse scored such that a

higher score equaled more positive attitudes about condoms. Items were averaged together to form each subscale, and the reliabilities were .70, .73, and .71, respectively.

Condom use resistance tactics—The Condom Use Resistance Tactics survey was developed by the authors (Author Citation, in press-a). Participants were asked to report the number of times (*0, 1, 2…* up to *20, 21 or more*) since the age of 14 that they had *successfully* avoided using a condom with a woman who had wanted to used one. Items were averaged within each subscale, and a value of 21 was used for participants who endorsed using a tactic 21 or more times. A total of 32 items describing a variety of resistance tactics comprised ten subscales: Risk-Level Reassurance (4 items; e.g., "Reassuring her that you were 'clean' so that she would have sex without a condom;" α = .80), Seduction (3 items; e.g., "Getting her so sexually excited that she agreed to have sex without a condom;" α = .89), Sensitivity (3 items; e.g., "Telling her you didn't want to use a condom because sex doesn't feel as good with one on;" α = .92), Direct Request (3 items; e.g., "Asking her to not use a condom during sex;" α = .90), Relationship and Trust (3 items; e.g., "Telling her that you trusted each other so that she would have sex without a condom;" α = .82), Emotional Consequences (3 items; e.g., "Telling her how angry you would be if she insisted on using a condom;" α = .64), Deception (4 items; e.g., "Pretending that you had been tested and did not have any STDs;" α = .73), Condom Sabotage (3 items; e.g., "Agreeing to use a condom but intentionally breaking the condom when putting it on;" α = .90), Withholding Sex (3 items; e.g., "Refusing to have sex with her if you had to use a condom;" α = .98), and Physical Threat/Force (3 items; e.g., "Preventing her from getting a condom by staying on top of her"). Because two of the three items on the Physical Threat/Force subscale were not endorsed by any participants, only the single item indicator given as the example above was used in these analyses.

Sexual experiences—The Sexual Experience Inventory was adapted from interview and questionnaire assessments (Capaldi, Stoolmiller, Clark, & Owen, 2002; Leigh, Temple, & Trocki, 1993) and assessed a wide range of consensual sexual experiences, such as number of lifetime sexual partners, number of instances of first date sex, and number of vaginal sex episodes over the past three months. It also assessed the percentage of time a condom was used and how often alcohol was consumed during vaginal sex in the past three months (with percentages scored as 0% to 100% in 10-point increments). Additional questions assessed STI diagnoses, participation in or use of different types of online sex, pornography or commercial sex (*1 = never; 2 = once per year or less; 3 = more than once per year but less than once per month; 4 = once per month; 5 = 2–3 times per month; 6 = once per week; 7 = more than once per week but not every day; 8 = every day*), as well as the age at which they initiated consensual sexual activity.

Sexual aggression—We used Abbey, Parkhill, and Koss's (2005) modified version of the Sexual Experiences Survey to assess prior perpetration of sexual aggression and/or coercion that occurred since the age of 14. Instances of unwanted sexual contact (fondling, kissing), attempted intercourse, completed intercourse, and other penetrative or oral sex were assessed for each of 5 different tactics: overwhelming the woman with continual arguments or pressure; telling her lies; making her feel guilty or getting angry; using or

threatening to use physical force; and committing any of the four types of sex acts while the woman was passed out or too intoxicated to consent. We also asked participants how many times they had "raped" a woman. Participants indicated the number of times that they did each of these combinations (*never, 1, 2, 3, 4, 5 or more times*) with scoring capped at 5. For the present analyses, item responses were dichotomized to reflect whether or not the participant had ever engaged in each behavior and then summed to create a total number of the types of sexually aggressive behaviors endorsed, which ranged from 0–21.

Data Analytic Strategy

LPA analyses were conducted using Mplus Version 6 (Muthén & Muthén, 1998–2010) to identify profiles of men based on their negative attitudes and hostility towards women, dispositional levels of sexual sensation seeking and impulsivity, and attitudes about condom use. A total of seven measures were entered into the analyses. We first examined a 2-class solution and then added one class at a time to the model until it was clear that the model fit no longer improved. Thus, we evaluated whether the addition of each class improved model fit to determine the appropriate number of classes to maintain. Because there is no consensus on the single best indicator to determine model fit (Nylund, Asparouhov, & Muthén, 2007), multiple fit statistics were examined. The Akaike information criterion (AIC) and the Bayesian information criterion (BIC) were expected to decrease as the model improved. The Lo-Mendell-Rubin test (LMR) compared a k class solution to a k – 1 class solution (where k = a given number of latent classes; Lo, Mendell, & Rubin, 2001). A significant LMR test, therefore, was indicative of improved model fit for the k class solution. In order to examine whether or not the latent classes were distinct from one another, we examined entropy with values approaching 1 being increasingly indicative of clear classification of participants within each latent class (Ramaswamy, Desarbo, Reibstein, & Robinson, 1993).

There was not a problem with missingness in the current study as less than 1% of all observations were missing on any variable. We examined the distributions of all outcome variables for normality. Analyses were conducted using generalized linear models (GzLM; McCullagh & Nelder, 1989) which allow for the use of better fitting distributions in the cases where problems with normality existed. Distributions of the condom use resistance tactics were modeled as negative binomial with log link functions because these variables were positively skewed (i.e., the majority of responses were concentrated at the lower end of the scale) and represent count data. For analyses predicting other sexual behaviors, age of first consensual sex and the frequency with which individuals used condoms and drank alcohol before sex were modeled as normal distributions with identity link functions, whereas lifetime sexual partners, frequency of sex on the first date, vaginal sex frequency, number of STIs, and the number of sexually aggressive behaviors were modeled as negative binomial with log link functions given that they were positively skewed count variables as described above. Analyses predicting the frequency of cybersex, watching erotic films, and seeing exotic dancers were modeled using a gamma distribution as these were continuous non-count variables that were positively skewed. The LPA class variable was entered as a categorical predictor variable in all models for which GzLM provides an overall test of significance of the LPA class variable on the dependent variable as well as parameter estimates for each class in comparison to another class selected to be the reference category.

In order to obtain all possible comparisons between classes, each model was run initially with the lowest class as the reference category and then again with the highest class as the reference category.

Results

Condom Use Resistance Tactics

As shown in Table 1, 80% of the sample reported successfully using condom use resistance tactics in their lifetime (i.e., used at least one resistance strategy to obtain unprotected sex), using an average of 3.5 different types of tactics. An examination of the frequency with which they used different types of tactics indicated that risk-level reassurance and seduction were the most commonly used tactics. Approximately half of the men reported that they attempted to convince their partner that using a condom would reduce their sensations during sex, or directly requested to not use a condom. Approximately one-quarter to one-third of the men reported that they brought up issues of relationship and trust or emotional consequences as a way to resist the use of a condom, or used deception. Less often used tactics, though noteworthy, were condom sabotage, withholding sex, and physical force to resist the use of condoms. Overall, the different tactics were highly correlated (Table 2).

Latent Profile Analysis

Table 3 shows the model fit statistics for the LPA. Although the LMR test for the 2-class solution was non-significant, suggesting that a single class solution would have been adequate, we were interested in determining whether there were different profiles of men that would be discriminated on the basis of their attitudes toward women, impulsive and sensation seeking dispositions, and condom attitudes. Therefore, we continued to test additional models with increasing numbers of classes. The AIC and BIC continued to decrease for all models; however, based on the non-significant LMR for the 4-class and 5-class solutions, the 3-class solution was retained. As indicated by the entropy value, the 3-class solution also did a good job of discriminating among the latent classes.

Standardized means for the variables included in the LPA are displayed in Figure 1. Class 1 (n = 151; 48.2%) was characterized by low negative beliefs about women, low levels of sexual sensation seeking and impulsivity, and positive beliefs about condoms and was thus labeled as Condom Positive/Low Hostility. Class 2 (n = 120; 38.3%) was characterized by moderately negative beliefs about women, moderate levels of sexual sensation seeking and impulsivity, and negative beliefs about condoms. This class was labeled Condom Negative/Moderate Hostility. Finally, Class 3 (n = 42; 13.4%) was characterized by high negative beliefs about women, moderate levels of sexual sensation seeking and impulsivity, and negative beliefs about condoms; thus, this class was named Condom Negative/High Hostility. As shown in Table 4, the Condom Positive/Low Hostility class differed from the other two classes on all of the profile indicators. The Condom Negative/High Hostility class had significantly stronger negative beliefs about women than did the Condom Negative/Moderate Hostility class; however, these two classes were similar in terms of their sexual sensation seeking, impulsivity, and condom attitudes.

Predicting Condom Use Resistance and Other Sexual Behavior from the LPA Classes

An initial GzLM model was conducted to examine differences among the three classes on the total number of condom use resistance tactics reported. A dichotomous variable for race (0 = White, 1 = Non-white) and highest level of education achieved were included in all models as control variables because race ($r = -.13$, $p < .05$) and education ($r = -.19$, $p < .01$) were significantly correlated with LPA class membership. There was a significant overall difference among the classes, Wald χ^2 ($df = 2$) = 22.97, $p < .001$, and the Condom Positive/Low Hostility class ($M = 26.36$, $SD = 46.64$) reported using significantly fewer tactics than the Condom Negative/Moderate Hostility ($M = 63.03$, $SD = 91.76$) and Condom Negative/High Hostility ($M = 81.95$, $SD = 87.64$) classes. The Condom Negative/Moderate Hostility class did not differ from the Condom Negative/High Hostility class.

GzLM models were conducted to examine differences among classes on their specific types of condom use resistance tactics used, also controlling for race and education as described above (Table 5). Compared to the Condom Positive/Low Hostility class, the other two classes reported greater use of risk-level reassurance, seduction, reduced sensitivity, direct request, relationship and trust, deception, and withholding sex. The Condom Negative/Moderate Hostility class engaged in greater use of emotional consequences and condom sabotage to resist condom use compared to the Condom Positive/Low Hostility class. (Although the mean of condom sabotage was higher in the Condom Negative/High Hostility class, this class was not significantly different from the other two classes, perhaps due to low power to detect differences given the smaller sample size of this class.) The use of physical force to resist condoms was not significantly different among the classes, although the means increased across the classes as predicted.

Additional GzLM models were conducted to examine differences among LPA classes on other sexual behaviors (see Table 6). In addition to controlling for race and ethnicity, these analyses also controlled for age, because age was significantly correlated with many of these dependent variables (e.g., lifetime number of sexual partners). Several significant differences among the groups emerged, with the Condom Negative/High Hostility class reporting more STIs, more frequent engagement in cybersex, and greater engagement in sexual aggression than the other two classes. Moreover, the Condom Negative/Moderate Hostility class endorsed more sexual aggression than the Condom Positive/Low Hostility class. The Condom Negative/High Hostility class had a greater number of lifetime sexual partners and drank more frequently prior to having sex than did the Condom Positive/Low Hostility class. Finally, the Condom Positive/Low Hostility class indicated they spent less time watching erotic films and saw exotic dancers less frequently than did those in the other two classes.

Discussion

In support of our hypotheses, latent profile analyses suggested three groups of men in our sample: 1) those who were more positive about condoms and women and lower in impulsive tendencies; 2) those who were high in negative attitudes about condoms and impulsive tendencies and were moderately negative in their attitudes about women; and 3) those who were high on each of the risk factors (impulsive tendencies and negative attitudes about

condoms and women). Consistent with our hypotheses, men who reported lower impulsivity and more positive attitudes towards women and condoms reported the lowest total rates of condom use resistance behavior. Contrary to our predictions, although the group with the most negative attitudes towards women were more likely than the Condom Positive/Low Hostility group to use deceptive condom resistance strategies, they did not significantly differ from any group in their use of condom sabotage or physical force tactics, perhaps due to low variability in these items (although the means did trend in the predicted direction). These findings indicated that previously established predictors of coercive condom use resistance (Author Citation, in press-b) – namely attitudes about condoms, attitudes about women, and dispositional impulsivity – are also applicable for predicting engagement in a variety of condom use resistance tactics. Moreover, LPA results suggested that even within a sample of young men who all report engaging in risky sexual behavior (i.e., inconsistent condom use), there is meaningful variability in their risk profiles, such that men who differed in their endorsement of the profile indicators also differed in their condom use resistance and other sexual behaviors. As a result, profile-specific findings may be particularly informative for targeting particular groups of men with interventions tailored to their specific needs.

Of note, 80% of our sample reported successfully engaging in at least one tactic to resist condom use since the age of 14, using any tactic an average of 48 times. These results corroborated our previous qualitative research finding that engaging in condom use resistance is a fairly common occurrence among young, male, heterosexual inconsistent condom users, and that many men in this population view such behavior as normative (Author Citation, in press-a). Moreover, although there was variability in the usage rates of particular tactics, every type of tactic was used on at least one occasion. Not surprisingly given findings of other studies (e.g., Abbey et al., 2005; Author citation, in press-b; Logan-Greene & Davis, 2011), physical force was the least used tactic. In addition to overt resistance strategies, several covert strategies were also frequently reported by men in our sample including the use of deception (almost 25% of sample) and condom sabotage (almost 10% of sample). Importantly, these more surreptitious condom use resistance tactics may be particularly difficult for women to detect and respond to in an effective and timely way.

Slightly less than one-half of the sample (48.2%) was categorized into the Condom Positive/Low Hostility group. This group had the lowest endorsement of all of the risk factors and reported significantly lower rates of condom use resistance than the other two groups. That noted, even though these men had relatively positive attitudes towards condoms, they still reported engaging in condom use resistance an average of 26 times since the age of 14. These rates suggest that prevention efforts focused on condom use resistance may prove effective even when applied universally and that only targeting higher-risk groups may miss an important opportunity to effect change. Moreover, it should be noted that because all of the men in this study were required to be inconsistent condom users, even this “lower” risk group engaged in some sexual risk behavior, as evidenced by the fact that none of the groups differed in their reported use of condoms in general. More research is needed to identify and explore other potential risk factors associated with condom use resistance in this group. For example, several studies suggest that alcohol intoxication is related to increased intentions to resist condom use (Abbey, Parkhill, Jacques-Tiura, &

Saenz, 2009; Davis, 2010; Davis et al., 2012b). This and other potential risk factors should be examined in future research.

The Condom Negative/Moderate Hostility group comprised 38.4% of the sample. This group was similar to the Condom Negative/High Hostility group on sensation seeking, impulsivity and condom attitudes, but they had more favorable attitudes towards women. Perhaps not surprisingly, the moderate group's resistance tactics were similar to those of the high group. Thus, in terms of screening individuals for condom use resistance risk, it may not be necessary to assess each of the risk factors included in this study given that elevation on any single risk factor appears to be indicative of increased, yet equal, risk of condom use resistance. That noted, although condom use resistance risk-focused screening may not need to distinguish between the moderate and high hostility groups, interventions themselves may be more effective if targeted toward the characteristics of each group. For example, interventions targeted to the Condom Negative/Moderate Hostility group could primarily focus on safe ways to explore sexual novelty and spontaneity, as well as increase the positivity of their condom attitudes. For example, interventions that eroticize safer sex (e.g., Higgins & Hirsch, 2008; Philpot, Knerr, & Boydell, 2006; Scott-Sheldon & Johnson, 2006) might be particularly effective with these men. That noted, this group did have more hostility towards women than the Condom Positive/Low Hostility group, so interventions that address gender roles and attitudes should also be incorporated into work with these men.

Of course, interventions addressing negative attitudes toward women are most clearly warranted for the Condom Negative/High Hostility group, which represented only 13.4% of the sample. Although similar to the Condom Negative/Moderate Hostility group in their condom resistance behavior, this group was significantly more likely than the other two groups to engage in sexually aggressive behavior. Notably, the current study did not assess whether or not the incidents involving physical force to obtain unprotected sex were definitively sexual assaults because specific information about the woman's consent to sexual activity was not obtained. Prior research has indicated, however, that the majority of penetrative sexual assaults do not involve condom use by the perpetrator (Davis, Schraufnagel, Norris, & George, 2008; Davis et al., 2012a). Future research could examine this issue more fully, disentangling sexual assault situations in which a condom is unavailable from those situations in which force was used specifically to obtain unprotected sexual activity. Such research could inform prevention programs targeted towards men fitting this profile by further elucidating the interplay of sexual risk, sexual aggression, and misogynistic attitudes.

Limitations and Conclusions

The men in this study were all young, heterosexual, moderate drinkers not currently in a committed relationship. As such, we limited our assessment of condom use resistance tactics to ones that were likely to be applicable to this group. Future research could explore other tactics not examined in the current study, such as those used by men in committed relationships, older men, or men with different alcohol consumption patterns (e.g., abstainers, problem drinkers). Although our sample's characteristics limit the generalizability of our findings, we purposefully limited our sample selection to men who

used condoms inconsistently in order to focus on men with elevated sexual risk. As such, it is unclear how these findings might apply to men with reduced sexual risk indices (e.g., consistent condom users). Because participants were asked to report on behaviors that could have occurred since age 14, our findings are necessarily subject to both self-report and recall bias. Future research utilizing prospective longitudinal methods would be well-suited to augment the current results. Similarly, work examining women's responses to their male partners' condom use resistance tactics, as well as women's own resistance towards using condoms, could provide an interesting corollary to the present findings.

In conclusion, the majority of men in this study reported *successfully* resisting condom use by employing an assortment of tactics. These tactics spanned the gamut from direct and straightforward, to covert and deceitful, to outright coercive and aggressive. Three different clusters of men were ascertained, and findings suggest important differences among the groups. In light of these findings that suggest frequent condom use resistance and because unprotected sex poses substantial sexual health risks for both men and women, condom use resistance deserves further empirical investigation and intervention attention. By improving our scientific understanding of both the risk and protective factors underlying condom use resistance behaviors, future research in this area may play an important role in guiding sexual risk prevention efforts toward more effective approaches to reduce sexual risk. Particularly implicated is the prospect of individually tailored intervention approaches based on empirically established risk profiles, such as those identified in the current study.

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References

Abbey A, Parkhill MR, Jacques-Tiura AJ, Saenz C. Alcohol's role in men's use of coercion to obtain unprotected sex. Substance Use & Misuse. 2009; 44:1329–1348.10.1080/10826080902961419 [PubMed: 19938921]

Abbey A, Parkhill MR, Koss MP. The effects of frame of reference on responses to questions about sexual assault victimization and perpetration. Psychology of Women Quarterly. 2005; 29:364–373.10.1111/j.1471-6402.2005.00236.x

Author citation, (in press-a). Blinded for review.

Author citation, (in press-b). Blinded for review.

Capaldi DM, Stoolmiller M, Clark S, Owen LD. Heterosexual risk behaviors in at-risk young men from early adolescence to young adulthood: Prevalence, prediction, and association with STD contraction. Developmental Psychology. 2002; 38:394–406.10.1037/0012-1649.38.3.394 [PubMed: 12005382]

Carter JA, McNair LD, Corbin WR, Williams M. Gender differences related to heterosexual condom use: The influence of negotiation styles. Journal of Sex & Marital Therapy. 1999; 25:217–225.10.1080/00926239908403996 [PubMed: 10407794]

Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance 2009. 2010. Retrieved from: http://www.cdc.gov/std/stats09/default.htm

Centers for Disease Control and Prevention. Sexual and Reproductive Health of Persons Aged 10–24 Years – United States, 2002–2007. Morbidity and Mortality Weekly Report Surveillance Summaries. 2009; 58(SS06):1–58. Retrieved from Centers for Disease Control and Prevention website: http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5806a1.htm.

Check JVP, Malamuth NM, Elias B, Barton S. On hostile ground. Psychology Today. 1985 Apr.:56–61.

Conley TD, Collins BE. Differences between condom users and condom nonusers in their multidimensional condom attitudes. Journal of Applied Social Psychology. 2005; 35:603–620.10.1111/j.1559-1816.2005.tb02137.x

Crosby R, Milhausen R, Yarber W, Sanders S, Graham C. Condom 'turn offs' among adults: an exploratory study. International Journal of STD & AIDS. 2008; 19:590–595.10.1258/ijsa.2008.008120 [PubMed: 18725548]

Crosby RA, Sanders SA, Yarber WL, Graham CA, Dodge B. Condom use errors and problems among college men. Sexually Transmitted Diseases. 2002; 29:552–557.10.1097/00007435-200209000-00010 [PubMed: 12218848]

Davis KC. The influence of alcohol expectancies and intoxication on men's aggressive unprotected sexual intentions. Experimental and Clinical Psychopharmacology. 2010; 18:418–428.10.1037/a0020510 [PubMed: 20939645]

Davis KC, Schraufnagel TJ, George WH, Norris J. The use of alcohol and condoms during sexual assault. American Journal of Men's Health. 2008; 2:281–290.

Davis KC, Kiekel PA, Schraufnagel TJ, Norris J, George WH, Kajumulo KF. Men's alcohol intoxication and condom use during sexual assault perpetration. Journal of Interpersonal Violence. 2012a; 14:2790–2806.10.1177/0886260512438277 [PubMed: 22491222]

Davis KC, Schraufnagel TJ, Jacques-Tiura AJ, Norris J, George WH, Kiekel P. Childhood sexual abuse and acute alcohol effects on men's sexual aggression intentions. Psychology of Violence. 2012b; 2:179–193.10.1037/a0027185 [PubMed: 22754720]

DeBro SC, Campbell SM, Peplau LA. Influencing a partner to use a condom. Psychology of Women Quarterly. 1994; 18:165–182.10.1111/j.1471-6402.1994.tb00449.x [PubMed: 12287707]

Eysenck SBG, Pearson PR, Easting G, Allsopp JF. Age norms for impulsiveness, venturesomeness, and empathy in adults. Personality and Individual Differences. 1985; 6:613–619.10.1016/0191-8869(85)90011-X

Helweg-Larsen M, Collins BE. The UCLA Multidimensional Condom Attitudes Scale: Documenting the complex determinants of condom use in college students. Health Psychology. 1994; 13:224–237.10.1037//0278-6133.13.3.224 [PubMed: 8055858]

Hendershot CS, Stoner SA, George WH, Norris N. Alcohol use, expectancies, and sexual sensation seeking as correlates of HIV risk behavior in heterosexual young adults. Psychology of Addictive Behaviors. 2007; 21:365–372.10.1037/0893-164X.21.3.365 [PubMed: 17874887]

Higgins JA, Hirsch JS. Pleasure, power, and inequality: Incorporating sexuality into research on contraceptive use. American Journal of Public Health. 2008; 98:1803–1813. http://dx.doi.org/10.2105/AJPH.2007.115790. [PubMed: 18703457]

Kalichman SC, Rompa D. Sexual sensation seeking and sexual compulsivity scales: Reliability, validity, and predicting HIV risk behavior. Journal of Personality Assessment. 1995; 65:586–601. [PubMed: 8609589]

Leigh BC, Temple MT, Trocki KF. The sexual behavior of US adults: Results from a national survey. American Journal of Public Health. 1993; 83:1400–1408.10.2105/AJPH.83.10.1400 [PubMed: 8214228]

Lo Y, Mendell N, Rubin D. Testing the number of components in a normal mixture. Biometrika. 2001; 88:767–778.10.1093/biomet/88.3.767

Logan-Greene PL, Davis KC. Latent profiles of risk among a community sample of men: Implications for sexual aggression. Journal of Interpersonal Violence. 2011; 26:1463–1477.10.1177/0886260510369138 [PubMed: 20587458]

Lonsway KA, Fitzgerald LF. Attitudinal antecedents of rape myth acceptance: A theoretical and empirical reexamination. Journal of Personality and Social Psychology. 1995; 68:704–711.10.1037//0022-3514.68.4.704

Malamuth NM, Sockloskie RJ, Koss MP, Tanaka JS. Characteristics of aggressors against women: Testing a model using a national sample of college students. Journal of Consulting and Clinical Psychology. 1991; 59:670–681.10.1037//0022-006X.59.5.670 [PubMed: 1955602]

McCullah, P.; Nelder, JA. Generalized Linear Models. 2. Chapman & Hall; London, England: 1989.

Measor L. Condom use: A culture of resistance. Sex Education: Sexuality, Society and Learning. 2006; 6:393–402.10.1080/14681810600982093

Muthén, LK.; Muthén, BO. Mplus User's Guide. 6. Los Angeles, CA: Muthén & Muthén; 1998–2010.

Noar SM, Morokoff PJ, Harlow LL. Condom negotiation in heterosexually active men and women: Development and validation of a condom influence strategy questionnaire. Psychology and Health. 2002; 17:711–735.10.1080/0887044021000030580

Nylund KL, Asparouhov T, Muthén B. Deciding on the number of classes in latent class analysis and growth mixture modeling: A Monte Carlo simulation study. Structural Equation Modeling. 2007; 14:535–569.10.1080/10705510701575396

Oncale RM, King BM. Comparisons of men's and women's attempts to dissuade sexual partners from the couple using condoms. Archives of Sexual Behavior. 2001; 30:379–391. [PubMed: 11446199]

Philpott A, Knerr W, Boydell V. Pleasure and prevention: When good sex is safer sex. Reproductive Health Matters. 2006; 14:23–31.10.1016/S0968-8080(06)28254-5 [PubMed: 17101419]

Purdie MP, Abbey A, Jacques-Tiura AJ. Perpetrators of intimate partner sexual violence: Are there unique characteristics associated with making partners have sex without a condom? Violence Against Women. 2010; 16:1086–1097.10.1177/1077801210382859 [PubMed: 20980229]

Ramaswamy V, Desarbo WS, Reibstein DJ, Robinson WT. An empirical pooling approach for estimating marketing mix elasticities with PIMS data. Marketing Science. 1993; 12:103–124.10.1287/mksc.12.1.103

Reece M, Herbenick D, Schick V, Sanders SA, Dodge B, Fortenberry JD. Condom use rates in a national probability sample of males and females ages 14 to 94 in the United States. Journal of Sexual Medicine. 2011; 7(suppl 5):266–276.10.1111/j.1743-6109.2010.02017.x [PubMed: 21029384]

Scott-Sheldon LAJ, Johnson BT. Eroticizing creates safer sex: A research synthesis. The Journal of Primary Prevention. 2006; 27:619–640.10.1007/s10935-006-0059-3 [PubMed: 17051432]

Sheeran P, Abraham C, Orbell S. Psychosocial correlates of heterosexual condom use: A meta-analysis. Psychological Bulletin. 1999; 125:90–132.10.1037//0033-2909.125.1.90 [PubMed: 9990846]

Smith LA. Partner influence on noncondom use: Gender and ethnic differences. The Journal of Sex Research. 2003; 40:346–350.10.1080/00224490209552200

Teitelman AM, Tennille J, Bohinski JM, Jemmott LS, Jemmott JB. Unwanted unprotected sex: Condom coercion by male partners and self-silencing of condom negotiation among adolescent girls. Advances in Nursing Science. 2011; 34:243–259.10.1097/ANS.0b013e31822723a3 [PubMed: 21822072]

Tschann JM, Flores E, de Groat CL, Deardorff J, Wibbelsman CJ. Condom negotiation strategies and actual condom use among Latino youth. Journal of Adolescent Health. 2010; 47:254–262.10.1016/j.jadohealth.2010.01.018 [PubMed: 20708564]

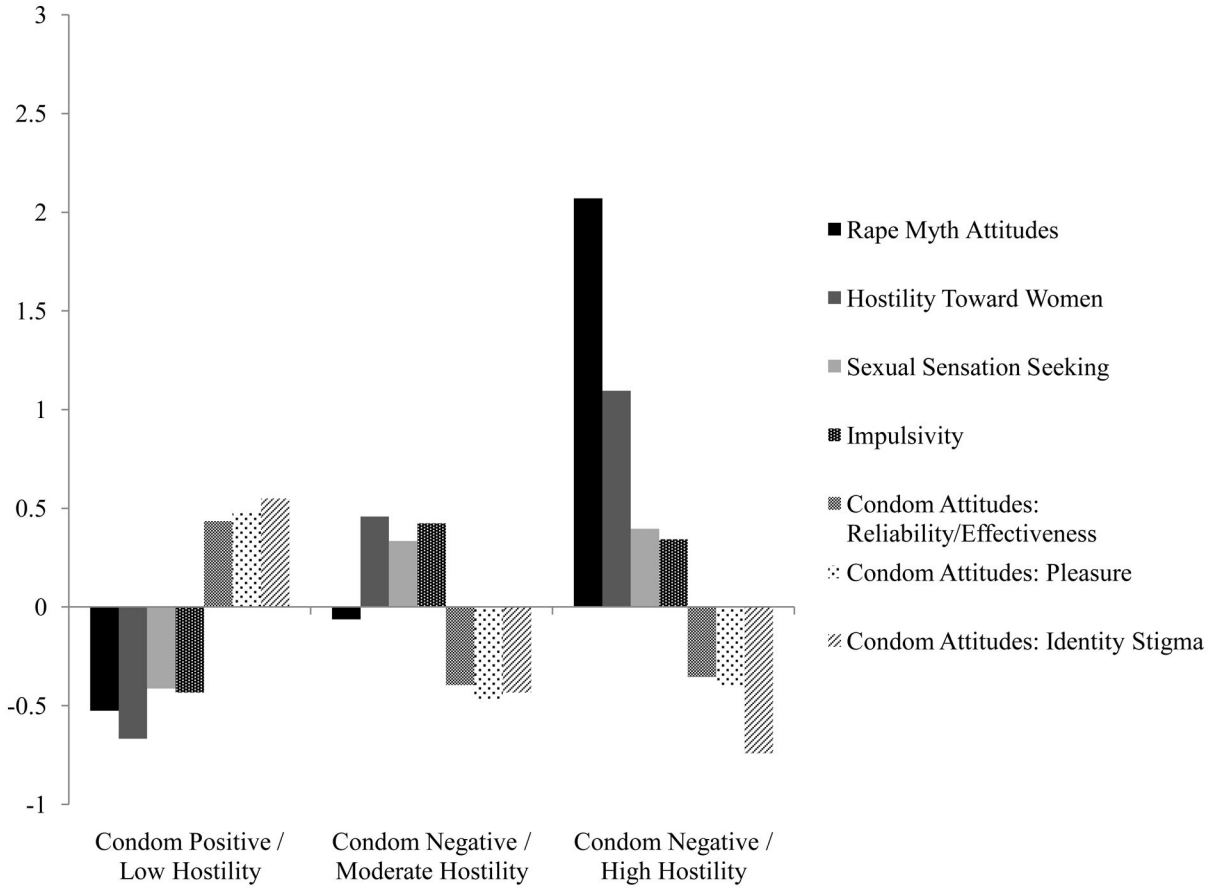

Figure 1.
Standardized Means of Attitudes and Dispositional Factors Included in the LPA.

Table 1

Descriptive Information for Use of Condom Resistance Tactics since Age 14 (N = 313)

	N	%	Range	Mean	SD
Frequency of any tactic	249	79.9	0–609	47.77	75.66
Number of different tactic types used	249	79.9	0–10	3.48	2.53
Frequency by tactic type					
Risk-Level reassurance	230	73.7	0–84	11.96	16.97
Seduction	227	73.2	0–63	12.36	16.76
Reduced sensitivity	156	50.3	0–63	8.58	15.59
Direct request	138	44.4	0–63	6.55	13.61
Relationship and trust	109	34.9	0–63	2.77	7.85
Emotional consequences	96	30.8	0–63	2.25	6.67
Deception	73	23.4	0–84	1.90	7.46
Condom sabotage	28	9.0	0–63	0.52	3.82
Withholding sex	23	7.4	0–63	0.95	5.93
Physical force	5	1.6	0 – 21	0.09	1.20

Note. *SD* = standard deviation

Table 2

Bivariate Correlations among Lifetime Use of Condom Resistance Tactics

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Risk-Level reassurance	-									
2. Seduction	.724***	-								
3. Reduced sensitivity	.782***	.685***	-							
4. Direct request	.699***	.528***	.737***	-						
5. Relationship and trust	.633***	.450***	.562***	.577***	-					
6. Emotional consequences	.622***	.523***	.629***	.721***	.738***	-				
7. Deception	.574***	.339***	.481***	.463***	.644***	.543***	-			
8. Condom sabotage	.340***	.260***	.269***	.268***	.481***	.508***	.746***	-		
9. Withholding sex	.429***	.265***	.371***	.450***	.748***	.670***	.674***	.573***	-	
10. Physical force	.229***	.155**	.191**	.139*	.101	.044	.308***	.149**	.009	-

*** $p < .001$.

** $p < .01$.

** $p < .05$.

Table 3

Model Fit Indices for the Latent Profile Analysis of Men's Attitudes and Disposition

Model	AIC	BIC	LMR	Entropy
2 Class	6199.84	6282.26	3203.8	.71
3 Class	6081.06	6193.45	3077.92**	.79
4 Class	6005.41	6147.77	3010.53	.79
5 Class	5952.23	6124.55	2964.71	.83

** $p < .01$.

Table 4

Means (and SDs) of Variables Included in the LPA by Class

	Condom Positive / Low Hostility (*n* = 151)	Condom Negative / Moderate Hostility (*n* = 120)	Condom Negative / High Hostility (*n* = 42)	Total Sample (*N* = 313)
Rape myth attitudes	1.34 (0.32)$_a$	1.71 (0.45)$_b$	3.39 (0.67)$_c$	1.76 (0.79)
Hostility toward women	2.17 (0.73)$_a$	3.38 (0.78)$_b$	4.06 (1.00)$_c$	2.89 (1.07)
Sexual sensation seeking	2.75 (0.48)$_a$	3.12 (0.40)$_b$	3.15 (0.47)$_b$	2.95 (0.50)
Impulsivity	5.53 (3.57)$_a$	9.06 (3.89)$_b$	8.73 (3.90)$_b$	7.31 (4.12)
Condom attitudes				
Reliability/effectiveness	6.34 (0.73)$_a$	5.49 (1.08)$_b$	5.54 (0.93)$_b$	5.90 (1.02)
Pleasure	4.32 (1.07)$_a$	3.18 (0.95)$_b$	3.28 (1.00)$_b$	3.74 (1.19)
Identity stigma	6.86 (0.26)$_a$	6.17 (0.73)$_b$	5.96 (0.90)$_b$	6.48 (0.70)

Note. Means with differing subscripts are significantly different at $p < .05$. Higher scores on condom attitudes subscales reflect more positive attitudes toward condoms.

Table 5

Means (and SDs) and Test of Significant Differences of Condom Use Resistance Tactics among Classes

	Condom Positive / Low Hostility	Condom Negative / Moderate Hostility	Condom Negative / High Hostility	GzLM Wald χ^2 (*df* = 2)
Condom use resistance tactics				
Risk-Level Reassurance	7.31 (12.42)$_a$	14.73 (18.18)$_b$	19.55 (20.76)$_b$	17.49***
Seduction	7.48 (12.67)$_a$	16.50 (18.61)$_b$	18.53 (19.53)$_b$	19.65***
Reduced Sensitivity	4.55 (10.88)$_a$	11.18 (17.36)$_b$	15.75 (20.59)$_b$	12.79**
Direct Request	3.61 (9.72)$_a$	8.61 (15.80)$_b$	10.95 (16.57)$_b$	9.49**
Relationship and Trust	1.60 (5.09)$_a$	3.62 (10.40)$_b$	4.25 (6.66)$_b$	8.43*
Emotional Consequences	1.27 (4.31)$_a$	3.34 (9.02)$_b$	2.88 (5.46)$_{a,b}$	7.44*
Deception	0.38 (1.89)$_a$	2.82 (9.44)$_b$	4.05 (10.31)$_b$	27.59***
Condom Sabotage	0.12 (0.62)$_a$	0.77 (5.86)$_b$	1.30 (3.00)$_{a,b}$	8.26*
Withholding Sex	0.07 (0.40)$_a$	1.96 (9.11)$_b$	0.80 (3.38)$_b$	95.36***
Physical Force	0.01 (0.16)	0.01 (0.09)	0.60 (3.33)	4.25, *ns*

Note. Means with differing subscripts are significantly different at $p < .05$. Race (white versus non-white) and education were statistically controlled in all models predicting condom use resistance tactics.

*** $p < .001$.

** $p < .01$.

** $p < .05$.

Table 6

Means (and SDs) and Test of Significant Differences of Other Sexual Behavior among Classes

	Condom Positive / Low Hostility	Condom Negative / Moderate Hostility	Condom Negative / High Hostility	GzLM Wald χ^2 (*df* = 2)
Lifetime sexual partners	14.70 (17.18)$_a$	18.09 (19.73)$_{a,b}$	22.06 (22.74)$_b$	6.06*
Age of first consensual sex	16.75 (2.47)	16.31 (2.28)	16.24 (2.73)	2.02, *ns*
Frequency sex on first date	4.33 (7.64)	5.41 (8.17)	7.38 (12.01)	2.48, *ns*
Vaginal sex frequency	21.41 (22.26)	21.61 (20.87)	21.82 (23.05)	0.89, *ns*
Condom use frequency	5.19 (3.91)	4.25 (4.00)	4.65 (3.99)	2.82, *ns*
Drank alcohol before sex	4.50 (3.13)$_a$	5.03 (3.02)$_{a,b}$	5.35 (2.92)$_b$	6.05*
Total number of STIs	0.13 (0.36)$_a$	0.13 (0.37)$_a$	0.71 (1.70)$_b$	23.16***
Sexual aggression	1.48 (2.09)$_a$	2.68 (3.01)$_b$	4.21 (3.41)$_c$	30.50***
Frequency erotic websites	5.84 (1.70)	5.98 (1.73)	5.53 (4.80)	0.64, *ns*
Frequency cybersex	1.13 (0.52)$_a$	1.29 (0.76)$_b$	1.91 (1.83)$_c$	35.77***
Frequency erotic films	2.09 (1.69)$_a$	2.62 (1.79)$_b$	3.15 (2.45)$_b$	11.57**
Frequency seeing exotic dancers	1.61 (0.71)$_a$	1.90 (0.88)$_b$	2.00 (0.99)$_b$	16.13***

Note. Means with differing subscripts are significantly different at $p < .05$. Race, education, and age were statistically controlled in all models predicting other sexual behavior.

*** $p < .001$.

** $p < .01$.

** $p < .05$.