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Relationship-Specific Condom Attitudes Predict Condom Use among STD Clinic Patients with both Primary and Non-Primary Partners

Theresa E. Senn^{1,2}, Lori A. J. Scott-Sheldon^{1,2}, and Michael P. Carey^{1,2,3}

¹Centers for Behavioral and Preventive Medicine, The Miriam Hospital, Providence, RI

²Department of Psychiatry and Human Behavior, Brown University, Providence, RI

³Department of Behavioral and Social Sciences, Brown University, Providence, RI

Abstract

Although condom use differs by partner type (i.e., primary vs. non-primary partner), attitudes towards condom use are typically measured without consideration of partner type. This study investigated the predictive utility of condom attitudes measured separately by partner type. Participants were 270 patients (37% women, 72% Black) recruited from a publicly-funded STD clinic who reported having both primary and non-primary partners. They completed a computerized survey assessing relationship-specific condom attitudes by partner type, condom attitudes related to pleasure and respect, and condom use with primary and non-primary partners. Participants reported more positive relationship-specific condom attitudes with a non-primary vs. primary partner. When considering pleasure-related, respect-related, and relationship-specific condom attitudes simultaneously, only relationship-specific condom attitudes predicted unprotected sex, with both primary and non-primary partners. In general, pleasure and respect-related condom attitudes did not predict unprotected sex; however, pleasure-related attitudes predicted unprotected sex with a non-primary partner for men. Future research should assess relationship-specific condom attitudes. Sexual risk reduction interventions that address interpersonal consequences of condom use in both primary and non-primary relationships should be a priority.

Keywords

condom attitudes; condom use; sexually transmitted infections; primary partner; non-primary partner

INTRODUCTION

Every year in the US, approximately 19 million people are infected with an STD (1), and 50,000 people are infected with HIV (2). The risk of STD and HIV infection can be greatly reduced with correct and consistent condom use (3), yet condom use remains low, even

among individuals who are engaging in sexual behaviors that put them at risk for STDs and HIV (4, 5).

Understanding predictors of condom use can lead to more effective interventions to increase condom usage. One important predictor in nearly all health behavior models is attitudes (6, 7). Attitudes towards condom use are often a strong predictor of condom use (4, 8–16). Furthermore, changes in attitudes towards condom use are an important mechanism through which sexual risk reduction interventions lead to behavioral change (15).

Attitudes towards condom use may differ by partner type. Qualitative research finds that individuals have different attitudes towards condom use in a committed relationship versus condom use with casual partners. It is more difficult to use condoms in committed relationships because condom use reduces intimacy and implies a lack of trust (17–19). Different attitudes towards condom use in committed versus casual relationships likely explains, at least in part, the finding that rates of condom use with non-primary partners are much higher than rates of condom use with primary partners (4, 20–22), and why condom use in relationships declines over time (23). Indeed, greater relationship commitment is associated with less positive condom attitudes (24) and lower intentions to request condom use (25).

The interpersonal or relationship consequences of condom use are an important component of condom attitudes (4, 12, 13). Several studies found that relationship-related condom concerns or barriers predicted actual condom usage even after accounting for pleasure-related condom concerns (8, 11, 14), suggesting that interpersonal factors are important in predicting condom use. Therefore, factors related to interpersonal concerns about condom use may be relationship-dependent. Nonetheless, most condom attitude measures assess general interpersonal concerns related to condom use, rather than interpersonal concerns by partner type (26, 27). When individuals have both primary and non-primary partners, it is unclear whether participants are responding to items related to interpersonal consequences of condom use based on primary partnerships, non-primary partnerships, or a combination of both types of partnerships. This ambiguity undermines researchers' ability to predict condom use. Because individuals with multiple partners are at higher risk for infection, and also place their partners at higher risk for STD/HIV infection (28), it is particularly important to better understand the predictors of condom use among these individuals.

Limited research has investigated condom attitudes by partner type; the few studies to do so have sampled adolescents. In that research, condom use barriers with a primary partner, but not with non-primary partners, predicted overall condom use (9). In models predicting condom use separately by partner type, barriers related to condom use with a primary partner predicted condom use with a primary partner, but barriers related to condom use with a non-primary partner did not predict condom use with a non-primary partner (29). To our knowledge, no research on condom attitudes by partner type has been conducted in adults.

Condom attitudes may also differ by gender. Studies have found that men have more negative condom attitudes than women (30, 31). Concerns related to the loss of pleasure

associated with condom use may be more important for men, whereas interpersonal concerns may be more important for women. Men were more likely to report that condoms decreased sensation, and women were more likely to report condoms decreased their *partner's* sensation during sex (32). Men also reported a greater decrease than women in pleasure ratings of unprotected vs. condom-protected vaginal sex (33). In contrast, women were more likely than men to agree with a statement that condoms suggest a lack of trust (32). Relative to men, women believed that suggesting condom use was a greater threat to their relationship (25). Thus, gender may moderate the relation between condom attitudes and condom use.

The purpose of this study is to investigate the predictive utility of condom attitudes assessed separately by partner type. Based on prior research, we hypothesized that: (1) individuals would have more negative attitudes towards condom use with primary vs. non-primary partners; (2) relationship-specific condom attitudes would be a more important predictor than general condom attitudes with a primary partner, but general condom attitudes would be a more important predictor than relationship-specific condom attitudes with non-primary partners; and (3) gender would moderate the relation between condom attitudes and condom use, with general attitudes a stronger predictor of condom use for men, and relationship-specific attitudes a stronger predictor of condom use for women.

METHOD

Participants

Participants were patients attending a publicly-funded STD clinic who agreed to take part in a randomized controlled trial (RCT) evaluating a sexual risk reduction intervention (34). Inclusion criteria for the RCT were: age 16 or older; and sexual risk behavior in the past 3 months (i.e., sex with multiple partners or sex with a partner who had other sexual partners and inconsistent condom use). Exclusion criteria were: HIV+; severe mental impairment (e.g., psychosis); currently in inpatient substance use treatment; or planning to move from the area within the next year. Of the 2766 patients approached about the study, 2677 (97%) agreed to answer the screening questions, 1322 (49%) met eligibility criteria, and 1010 (76%) consented. Participants were randomly assigned to complete either a general health survey (50%; $n = 508$) or a sexual health survey (50%; $n = 502$). Only the sexual health survey included questions related to condom attitudes. In the present study, we use data from 270 participants (54%) who completed the sexual health survey and who reported having both a primary and a non-primary partner in the past 3 months.

Procedures

A trained Research Assistant (RA) called patients from the waiting room, by clinic number, and escorted them to a private exam room. The RA briefly explained the study and obtained verbal consent for screening. The study was explained to patients who met study criteria. Those who were interested in participating provided written, informed consent. They completed a calendar of important events (e.g., birthdays, holidays, trips, parties) over the past 3 months, to help orient them to the timeframe used in many of the survey questions. The RA helped the participant complete several sample questions on the computer, and then

participants were left alone in the exam room to complete the baseline Audio Computer-Assisted Self-Interview (ACASI). Participants were reimbursed \$30 for their time. After completing study procedures, participants saw a nurse for their clinic visit. All procedures were approved by the Institutional Review Boards of the participating institutions. To further protect participant privacy, a Federal Certificate of Confidentiality was obtained.

Measures

Demographics—Participants were asked to report their age, gender, race, income, education, and employment status.

General condom attitudes—Condom attitude items were based on items from existing condom attitudes measures (27, 35, 36). Participants first responded to 15 condom attitude items that were expected not to differ by partner type. Participants were asked to rate how much they agreed or disagreed with each statement on a 6-point scale (1 = strongly disagree, 6 = strongly agree). Several items were reverse scored so that a higher score indicated more positive condom attitudes.

The reliability of these general condom attitudes was assessed. Five items with negative or low item-rest correlations (i.e., correlation between a single item and a scale of the remaining items) were removed from the scale. An exploratory factor analysis (EFA), using principal axis factors, was conducted with the reduced set of items (i.e., 10 remaining attitude items). Two factors emerged with eigenvalues greater than 1.00 (2.28 and 1.34); these two factors accounted for 76% of the variance (48% and 28% respectively). EFA, using principal axis factors, was conducted restricting the analysis to the two factors. The items for the two factors related to *pleasure* (6 items; factor loadings ranged from 0.34 to 0.58) and *respect* (3 items; factor loadings ranged from 0.36 to 0.55). A single item that loaded equally on both factors (*pleasure*: 0.38; *respect*: 0.36) was deleted. Scores on the final 6-item *pleasure* (e.g., “I have difficulty climaxing when we use a condom,” “Sex feels better without a condom”) and 3-item *respect* (e.g., “Using a condom shows I respect myself,” “I respect women who insist on condom use”) sub-scales were averaged. Higher scores on the condom attitude sub-scales (pleasure and respect) indicated that participants had more favorable attitudes toward condom use, that is, their pleasure was less affected by condom use and they reported more respect for those who used condoms (pleasure: $M = 3.51$, $SD = 1.00$, $\alpha = .71$; respect: $M = 5.51$, $SD = 0.63$, $\alpha = .65$).

Relationship-specific condom attitudes—Participants were then asked to respond to 7 attitude items that were specific to condom use with their main or primary partner. These included items related to general attitude (e.g., “It is hard to use condoms with my primary partner”), relationship impact (e.g., “Talking about condoms would hurt my relationship with my primary partner”) and negotiation and use (e.g., “It is easy to suggest to my primary partner that we use a condom”). Participants responded to the same 7 attitude items in relation to condom use with non-primary partners (“primary partner” was changed to “outside partner” for these items). The same 6-point scale was used for all condom attitude items. Items were reverse scored so that a higher score indicated more positive condom attitudes. Two items with low item-rest correlations were dropped from the scales. Scores

for the remaining 5 items were averaged; total possible scores ranged from 1 to 6. Higher scores on the interpersonal-related condom attitude scales indicated that participants had more positive attitudes toward using a condom with a primary ($M = 3.56$, $SD = 1.33$, $\alpha = .80$) or non-primary ($M = 4.81$, $SD = 1.00$, $\alpha = .71$) partner.

Condom use—Participants were asked whether they had a main or primary partner, defined as “someone that you are really committed to, such as a boyfriend or girlfriend, husband or wife, or wifey.” Those who reported having a primary partner were asked: (a) how many times they had vaginal sex with that partner in the past 3 months; (b) how many times a condom was used for vaginal sex with that partner in the past 3 months; (c) how many times they had anal sex with that partner in the past 3 months; and (d) how many times a condom was used for anal sex with that partner in the past 3 months. Responses were used to derive the number of episodes of unprotected sex (vaginal + anal) with a primary partner in the past 3 months.

Participants were then asked about condom use with “other” partner(s), defined as any partners not considered a main or primary partner. They were asked about the number of total and condom protected vaginal and anal sex episodes (questions similar to those described above) across all other (i.e., non-primary) partners in the past 3 months. Responses were used to derive the number of episodes of unprotected sex (vaginal + anal) with non-primary partners in the past 3 months. Our analyses focused on the number of episodes of unprotected sex because this variable reflects risk for STI acquisition (37).

Data Analysis

Summary statistics (means and standard deviations, frequencies) were used to describe demographic characteristics, condom attitudes (general and relationship-specific), and number of unprotected sex events for the sample. Correlation coefficients were used to determine whether characteristics of the sample were associated with condom use (i.e., episodes of unprotected sex with a primary [outside] partner); sample characteristics associated with condom use were included as covariates in the final moderator analyses.

Paired *t*-tests were used to examine differences between participants’ relationship-specific condom attitudes with their primary and non-primary partners (Hypothesis 1). We then investigated the predictive utility of general vs. relationship-specific condom attitudes in predicting condom use with primary and non-primary partners (Hypothesis 2). First, bivariate regression analyses were used to determine how well relationship-specific condom attitudes predicted condom use with primary and non-primary partners alone (unadjusted) and when controlling for attitudes toward the other partner type (adjusted), and whether general condom attitudes predicted condom use with a primary or non-primary partner. Next, hierarchical multiple regression analyses, stratified by primary and non-primary partners, were conducted. To determine whether condom attitudes related to relationship-specific or general concerns were stronger predictors of condom use, condom attitudes related to general concerns were entered in Step 1 and condom attitudes related to relationship-specific concerns were entered in Step 2.

To determine whether sex moderated the association between condom attitudes and condom use (Hypothesis 3), independent *t*-tests were first used to evaluate sex differences in condom attitudes. A series of hierarchical multiple regression models was then conducted.

Demographic variables associated with condom use (income level) were entered in Step 1, the main effects of condom attitudes and sex of participant (1 = men, 0 = women) were entered in Step 2, and the condom attitudes $\times$ sex interaction term was entered in Step 3.

RESULTS

Summary Statistics

The sample was 37% female ($n = 100$), 72% African American ($n = 194$), and 16% Caucasian ($n = 44$). Participants were, on average, 28 years of age ($SD = 9$ years). Approximately half of participants had a high school education or less (65%; $n = 175$), an income of $<\$15,000/\text{year}$ (58%; $n = 153$), and was unemployed (57%; $n = 153$). Participants reported having unprotected sex, on average, 20 times ($SD = 22$) with a primary partner and 3 times ($SD = 4$) with a non-primary partner in the past 3 months. Demographic variables were not associated with unprotected sex except for sex and income: Men (vs. women) reported higher rates of unprotected sex with non-primary partners ($r = .15$, $p = .021$) and patients reporting an income of less than \$15,000 per year (vs. $\geq \$15,000$) reported higher rates of unprotected sex with non-primary partners ($r = 0.13$, $p = .035$).

Relationship-Specific Attitudes toward Condom Use

Paired *t*-tests indicated that participants reported more favorable relationship-specific condom attitudes with a non-primary partner vs. their primary partners, $t(261) = 13.67$, $p < .001$ (Hypothesis 1).

Predicting Condom Use from Attitudes Related to Relationship-Specific versus General Condom Attitudes

Regression analyses showed that relationship-specific condom attitudes were associated with unprotected sex with a primary and with a non-primary partner. Negative binomial regression models (with robust standard errors) indicated that relationship-specific attitudes towards condom use with a primary partner were associated with the number of unprotected sex events with a primary partner (IRR = 0.85, 95% CI = 0.76, 0.94, $p = .003$), whereas relationship-specific attitudes towards condom use with non-primary partners were associated with the number of unprotected sex events with non-primary partners (IRR = 0.74, 95% CI = 0.63, 0.85, $p < .001$) (Figure 1). Subsequent regression analyses to account for participants' attitudes toward the other partner type indicated that relationship-specific attitudes with a primary partner, but not a non-primary partner, predicted unprotected sex with a primary partner (primary: IRR = 0.84, 95% CI = 0.75, 0.96, $p = .001$; non-primary: IRR = 1.07, 95% CI = 0.94, 1.21, $p = .296$) and relationship-specific attitudes with a non-primary partner, but not a primary partner, predicted unprotected sex with a non-primary partner (primary: IRR = 0.94, 95% CI = 0.83, 1.05, $p = .263$; non-primary: IRR = 0.75, 95% CI = 0.64, 0.87, $p < .001$).

Negative binomial regression models (with robust standard errors) indicated that general condom attitudes were not associated with unprotected sex with a primary partner (pleasure: $p = .632$; respect: $p = .056$); however, general condom attitudes related to pleasure (IRR = 0.85, 95% CI = 0.72, 0.99, $p = .040$) and respect (IRR = 0.79, 95% CI = 0.63, 0.99, $p = .040$) were associated with unprotected sex with non-primary partners.

To examine whether relationship-specific condom attitudes or general attitudes were stronger predictors of condom use with primary and with non-primary partners (Hypothesis 2), we conducted two separate hierarchical regressions models, stratified by partner type, with unprotected sex as the criterion and condom attitudes (relationship-specific and general) as predictor variables. As shown in Table I, relationship-specific condom attitudes were associated with unprotected sex with a primary partner, but general condom attitudes (pleasure or respect) were not associated with unprotected sex with a primary partner (overall model $\chi^2 [1] = 8.20$, $p = .004$). Similarly, relationship-specific condom attitudes, but not general condom attitudes (pleasure or respect) predicted episodes of unprotected sex with non-primary sexual partners (overall model $\chi^2 [1] = 11.94$, $p = .001$).

Sex as a Moderator of the Association between Condom Attitudes and Use

Independent t -tests showed that men and women did not differ in relationship-specific attitudes toward using condom with a primary partner (men: $M = 3.49$, $SD = 1.30$; women: $M = 3.67$, $SD = 1.37$; $t [260] = 1.05$, $p = .295$) or in relationship-specific attitudes towards condom use with non-primary partners (men: $M = 4.76$, $SD = 0.99$; women: $M = 4.91$, $SD = 1.02$; $t [260] = 1.14$, $p = .255$). There were also no differences between men and women with respect to their condom attitudes related to pleasure (men: $M = 3.43$, $SD = 0.93$; women: $M = 3.66$, $SD = 1.10$; $t [268] = 1.88$, $p = .061$). Men and women differed on condom attitudes related to respect. Compared to women, men reported lower condom attitudes related to respect ($M = 5.44$, $SD = 0.69$ vs. $M = 5.64$, $SD = 0.51$; $t [268] = 2.51$, $p = .013$).

Regression analyses (negative binomial regression with robust error variance) were used to examine whether sex of the participant moderated the association between condom attitudes and unprotected sex (Hypothesis 3). Six separate models were tested, controlling for income level (see Table II). In these analyses, we included sex (1 = men, 0 = women) and condom attitudes (relationship-specific, pleasure, and respect) as main effects, as well as sex by attitudes interaction terms to test whether sex moderated the association between condom attitudes and unprotected sex. The association between pleasure-related condom attitudes and condom use with a non-primary partner was moderated by sex of participant. As pleasure-related attitudes increased (i.e., pleasure was less impacted by condom use), men reported fewer unprotected sex events with non-primary partners (incident RR = 0.70, 95% CI = 0.51, 0.96; see Figure 2), whereas for women, pleasure-related attitudes were unrelated to their number of episodes of unprotected sex with non-primary partners. Sex of the participant did not moderate the association between relationship-specific or respect-related condom attitudes and unprotected sex with non-primary partners. Sex of the participant also did not moderate the relation between condom attitudes (relationship-specific, pleasure, or respect) and unprotected sex with a primary partner.

DISCUSSION

The current study investigated relationship-specific condom attitudes as predictors of condom use with primary and non-primary partners. Three major findings emerged from this research. First, participants reported more favorable relationship-specific attitudes towards condom use with a non-primary partner versus with a primary partner. This finding corroborates reports from qualitative research that condom use is more difficult in primary relationships because it reduces intimacy and implies a lack of trust (17–19). Our study is one of the first to quantitatively document that attitudes towards condom use differ when considering condom use with primary versus non-primary partners.

Second, we found that attitudes towards condom use with a primary partner predicted unprotected sex with a primary partner, and attitudes towards condom use with a non-primary partner predicted condom use with non-primary partners. These relationship-specific attitudes towards condom use predicted condom use only in the corresponding type of relationship; that is, relationship-specific attitudes towards condom use with a primary partner did not predict condom use with a non-primary partner, and relationship-specific attitudes towards condom use with a non-primary partner did not predict condom use with a primary partner. When considering pleasure-related, respect-related, and relationship-specific condom attitudes simultaneously, only relationship-specific condom attitudes predicted unprotected sex, with both primary and non-primary partners. In contrast to our hypothesis, relationship-specific condom concerns were important in both primary and non-primary relationships. Other studies have documented that relationship-related condom concerns predicted condom use after accounting for pleasure-related concerns (14), and that pleasure-related concerns did not predict condom use after relationship-related attitudes were included (8, 11). Thus, the present study adds to the literature suggesting that relationship-related condom attitudes are more important predictors of condom use than pleasure-related condom attitudes, and advances the literature by documenting this association in both primary and non-primary relationships.

Finally, we found that gender moderated the relation between condom attitudes and unprotected sex, but only for pleasure-related attitudes towards condom use with a non-primary partner. For women, pleasure-related attitudes were unrelated to condom use with non-primary partners, whereas for men, as pleasure-related attitudes towards condom use increased (i.e., condoms did not lessen sexual pleasure), the number of episodes of unprotected sex with a non-primary partner decreased. This finding is consistent with prior research that concerns related to the loss of pleasure associated with condom use may be more important for men than for women (32, 33, 38). Our findings advance prior research by showing that pleasure-related attitudes among men only predicted unprotected sex with a *non-primary* partner; pleasure-related attitudes were unrelated to unprotected sex with a primary partner.

Our findings have important implications for future research, as well as for intervention development. These findings suggest that it is not only important to investigate condom use *behavior* by partner type (20, 21), it is also important to investigate condom *attitudes* by partner type, as attitudes towards condom use differ when considering primary vs. non-

primary partners. Future research should investigate whether other predictors of condom use behavior (e.g., condom negotiation skills, perceived susceptibility, norms) also differ by partner type, and whether assessing these variables by partner type improves the predictive ability of theoretical models. In addition, researchers could consider relationship variables that may differentiate between primary vs. non-primary relationships (e.g., trust, commitment, respect, affection) and assess whether these variables moderate the relation between condom attitudes and condom use behavior (39).

When addressing condom-related attitudes in sexual risk reduction interventions, it is important to focus on relationship-related condom concerns in both primary and non-primary relationships. Pleasure-related condom concerns may only need to be addressed for men with non-primary partners. In our own individual-level intervention work (40), relationship-related concerns have proved challenging to address. Alternative intervention delivery methods, such as couples-level interventions that encourage open and honest communication, or media-based interventions that promote alternative interpretations of condom use (e.g., “using a condom shows I care about you,” “I respect my partner for protecting me by using a condom” rather than “using a condom shows I don’t trust you”), may be more effective ways to address relationship-specific condom attitudes.

This study had several strengths, including a large and diverse sample and use of ACASI technology, which is associated with increased reporting of stigmatized behavior (41), and which allows individuals of all literacy levels to participate. As with any self-report study, responses may be subject to recall or social desirability biases, although we took steps to minimize these biases (i.e., calendar of important events; use of ACASI technology). We conducted our research with STD clinic patients; results may not generalize to other populations. In addition, we restricted our analyses to individuals who reported having both primary and non-primary partners. Although this approach increased statistical power by allowing us to conduct within subjects analyses, it reduced the generalizability of our results; our findings may not apply to individuals who have only a primary or only non-primary partner(s). However, individuals with concurrent partnerships (and their partners) are the most at risk of contracting an STD; thus, it is important to understand the antecedents of condom use among this subpopulation of individuals who have both primary and non-primary partners. Finally, we did not assess pleasure-related or respect-related condom attitudes separately by partner type because we did not expect these attitudes to differ by partner type; however, it is possible that these attitudes differ by partner type.

In conclusion, relationship-related condom attitudes differed by partner type. These relationship-related condom attitudes predicted unprotected sex even after accounting for pleasure- and respect-related condom attitudes. Pleasure-related attitudes predicted unprotected sex only for men with a non-primary partner. Future research should investigate condom attitudes separately by partner type. Sexual risk reduction interventions should address relationship-related condom concerns.

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Figure 1.
Predicted number of unprotected sex events by relationship-specific condom attitudes for primary and non-primary partners.

Figure 2.
Predicted number of unprotected sex events with a non-primary partner by participant sex and pleasure-related condom attitudes.

Table 1
Hierarchical Regression Analyses Predicting Condom Use from General and Relationship-Specific Condom Attitudes

Unprotected sex					
Step	Variable	IRR(RSE)	z	χ^2	df
Primary Sexual Partners					
Step 1	General: Pleasure	0.97 (.07)	-0.35		
	General: Respect	0.86 (.09)	-1.43		
				2.40	2
Step 2	General: Pleasure	1.00 (.08)	0.05		
	General: Respect	0.84 (.09)	-1.55		
	Relationship-specific	0.85 (.05)	-2.13**		
				10.68*	3
Non-primary Sexual Partners					
Step 1	General: Pleasure	0.87 (.07)	-1.78 [†]		
	General: Respect	0.83 (.10)	-1.56		
				7.65*	2
Step 2	General: Pleasure	0.94 (.08)	-0.65		
	General: Respect	0.92 (.11)	-0.68		
	Relationship-specific	0.76 (.06)	-3.46**		
				19.73***	3

†
 $p < .10$.

*
 $p < .05$.

**
 $p < .01$.

 $p < .001$.

Note. Negative binomial regression analyses with robust variance estimation. χ^2 = Wald's χ^2

Table II

Regression Analyses Examining Sex as a Moderator of the Association between General and Relationship-Specific Condom Attitudes and Use

	Primary Partners	Non-primary Partners
	IRR (SE)	IRR (SE)
<i>Relationship-specific condom attitudes</i>		
Income	1.03 (.14)	1.60 (.26)
Sex	0.66 (.25)	3.08 (2.18)
Attitudes	0.78 (.06)	0.82 (.10)
Sex $\times$ Attitudes	1.16 (.12)	0.87 (.14)
<i>Attitudes Related to Pleasure</i>		
Income	1.05 (.15)	1.59 (.27)
Sex	2.15 (1.09)	5.09 (2.89)
Attitudes	1.06 (.12)	1.06 (.13)
Sex $\times$ Attitudes	0.82 (.12)	0.70 (.11)*
<i>Attitudes Related to Respect</i>		
Income	1.08 (.15)	1.55 (.25)
Sex	3.49 (5.39)	0.26 (.39)
Attitudes	1.01 (.25)	0.61 (.14)
Sex $\times$ Attitudes	0.81 (.22)	1.37 (.37)

* $p < .05$.

Note. Negative binomial regression analyses with robust variance estimation.