

Sexual Motives, Gender, and Sexual Behavior

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The roles of gender and the sexual motives of Love, Pleasure, Conformity, Recognition, Dominance, and Submission in numerous usual and unusual sexual behaviors were investigated. In a survey of 191 college undergraduates it was found that Love, Pleasure, Conformity, and Recognition motives, often in interaction with gender, were all important predictors of sexual behavior. Gender was the best predictor of initiating usual sexual behavior, whereas the Love motive was the best predictor of actually engaging in usual sexual behavior. Pleasure and Recognition in interaction with gender were the best predictors of engaging in unusual sexual behavior. None of the sexual motives predicted initiating unusual sexual behavior. Findings suggest that a variety of sexual motives may underlie sexual behavior.

KEY WORDS: sexual motives; gender; sexual behavior.

INTRODUCTION

People engage in sexual behavior for numerous reasons, including love and affection, pleasure, conformity, recognition, power, stress reduction, and possibly others. Knowledge of sexual motives is important for understanding and predicting sexual behavior. In addition, understanding and awareness of sexual motives may facilitate communication and reduce conflict between partners in romantic relationships.

Nelson (1978) was the first to develop scales to measure sexual motives. His factor analyses yielded five reasons for engaging in sexual behavior: (1) love and affection, (2) pleasure, (3) conformity, (4) recognition-competition, and (5) power (dominance and submission).

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Nelson performed separate analyses for males and females for 10 sexual variables ranging from frequency of casual sex to frequency of coital orgasm. In general, conformity, love, and pleasure (in that order) were the best predictors across the 10 sexual variables.

Hill and Preston (1996) reported construction of an inventory of sexual motives that included the following scales: (1) valued by partner, (2) value for partner, (3) relief from stress, (4) providing nurturance, (5) enhance own power, (6) power of partner, (7) pleasure, and (8) procreation. The value by partner, value for partner, and nurturance scales, which appear similar to Nelson's love and affection scale, were highly intercorrelated (more than +.60). The enhance own power scale seems similar to Nelson's dominance scale, and the power of partner scale appears to be similar to Nelson's submission scale. Hill and Preston (1996) did not include a conformity or recognition scale, but did include scales for two motives not present in Nelson's work: relief from stress and procreation.

Hill and Preston found that procreation was neither a reason for nor a correlate of college undergraduates' sexual behavior. Relief from stress, however, correlated positively with each of the other sexual motives and was the only significant predictor variable for masturbation frequency. Thus, relief from stress appears to be a useful addition to Nelson's inventory of sexual motives.

The present study, for which the data were gathered before Hill and Preston's (1996) article was published, attempted to answer six questions: First, for which sexual motives are there gender differences in endorsement? Second, although Hill and Preston (1996) discussed and examined gender differences, neither they nor Nelson (1978) employed interactions between gender and sexual motives in their regression analyses. Because males often engage in intercourse at an earlier age than do females (Oliver and Hyde, 1993) and are more permissive and eager for sex than are females (Clark and Hatfield, 1989; Oliver and Hyde, 1993), gender may interact with sexual motives. Thus, we asked whether interactions between gender and sexual motives should be included in regression analyses of sexual behavior.

Third, no published research has investigated relationships between sexual motives and the full range of sexual behaviors from kissing to intercourse. Thus, we asked whether results of previous studies replicate across the whole range of sexual behaviors. We also examined both initiating and engaging in sexual behavior because they may involve different dynamics.

Fourth, previous studies of sexual motives have not investigated "unusual" heterosexual behaviors (discussed below) other than anal sex. Certain sexual motives may be relevant for usual but not for unusual sexual behavior or vice versa, and interactions with gender may vary with the type of sexual behavior.

It is an open question as to what constitutes unusual sexual behavior. For this study, we asked about 13 sexual activities that we thought would be engaged in by substantially less than the majority of respondents. We simply wanted to see if sexual behaviors that most people do not practice display different associations with sexual motives and gender than do more commonly practiced sexual behaviors.

Fifth, Nelson included conformity and recognition as motives for sex, but Hill and Preston did not. Thus, we asked if such motives should be included in models of sexual behavior.⁵ Finally, because of the importance of birth control in preventing unwanted pregnancies and of condom usage in decreasing both unwanted pregnancies and sexually transmitted diseases (STD's), we asked which sexual motives are associated with use of birth control and condoms.

GENDER DIFFERENCES IN SEXUAL MOTIVES

Several studies have found that women, compared to men, are more likely to report love and less likely to report pleasure as a reason for engaging in sexual behavior (Carroll *et al.*, 1985; Leigh, 1989; Nelson, 1978; Whitley, 1988). At the time our study was designed, Nelson's (1978) research provided the only data on conformity, recognition, dominance, and submission as sexual motives. Our own chi-square analyses of Nelson's data on respondents' ranking of sexual motives indicated no evidence of a gender difference in endorsement of Recognition or of Dominance, but did show that a significantly higher percentage of women than men ranked Submission as their primary sexual motive. There was also a trend ($p < 0.08$) for men to rank Conformity higher than did women.

SEXUAL MOTIVES AND SEXUAL BEHAVIOR

Engaging in Usual Sexual Behavior

At the time our study was designed, data on relationships between sexual motives and sexual behavior were available only from Nelson (1978) and Leigh (1989). Leigh's study included love and pleasure but not conformity, recognition, dominance, or submission as sexual motives. Leigh (1989) examined reasons for both having and not having sex to predict frequency of sex.

Although Love did not predict frequency of sex in Leigh's regression analyses, it was the best predictor of frequency of intimate sex in Nelson's study. Based on this evidence and because romantic love entails a sexual component in the minds of most people (Berscheid, 1996), we predicted that love as a sexual motive would be associated with sexual behavior.

Overall, Pleasure was the best predictor of frequency of sex in Leigh's study, and was positively correlated with frequency of intercourse in Nelson's study. Hence, we expected that pleasure as a sexual motive would be associated with sexual behavior.

⁵Similarly, Hill and Preston studied two motives not present in Nelson's work—relief from stress and procreation. We would, of course, like to explore the importance of these motives in shaping sexual behavior. Unfortunately, the Hill and Preston study was not published until our data collection was complete.

Nelson found a negative correlation between the conformity motive and frequency of both intercourse and intimate sex. Thus, we predicted a negative association between Conformity and usual sexual behavior overall. However, because there is often peer pressure among young men to engage in and among young women to abstain from heterosexual behavior (DeGaston *et al.*, 1996; Muehlenhard and Cook, 1988), we also predicted that Conformity would be associated with engaging in sexual behavior for men and with abstaining from it for women.

Nelson found an association between Recognition and frequency of casual sex but not of intimate sex for both genders. Hence, we predicted a weak, positive association between Recognition and sexual behavior.

To the extent that dominance means getting what you want, and men in general are eager to engage in sexual behavior (Clark and Hatfield, 1989), then, for men, dominance as a sexual motive should be associated with engaging in sexual behavior. However, women, for whom love and commitment are often prerequisites for engaging in sexual behavior (Reiss, 1960; Tavis and Semin, 1997) and who tend to restrain sexual behavior (Hatfield and Rapson, 1996; Vanwesenbeeck *et al.*, 1998), dominance may be associated with abstaining from sexual behavior. That is, we expected that men with a high dominance motive would engage in relatively *more* sexual behavior, whereas women with a high dominance motive would engage in relatively *less* sexual behavior. Consistent with this analysis, Nelson found an association between Dominance and frequency of casual sex for men only.

For Submission, we predicted the opposite pattern from that for dominance. That is, we predicted that men with a high submission motive would engage in relatively *less* sexual behavior, whereas women with a high submission motive would engage in *more* sexual behavior.

Initiating Usual Sexual Behavior

Apparently, only Nelson's (1978) study has examined relationships between sexual motives and initiation of sexual behavior. Nelson found a positive correlation between the love motive and frequency of initiation that was significant for women only. Thus, we predicted that love would be associated with initiating usual sexual behavior only for women. Pleasure, in Nelson's data, was associated with initiation for both genders; thus, we expected that the pleasure motive would be associated with initiating usual sexual behavior across gender.

Evidence of peer pressure for young men to engage in and young women to abstain from sexual behavior suggests that the correlation between Conformity and initiation is apt to be positive for men and negative for women. Nelson found this correlation to be zero for men and significantly negative for women. Hence, we predicted that the association between Conformity and initiating usual sexual behavior would be either positive or zero for men and negative for women.

Nelson found that Recognition was associated with initiation for both genders; thus, we expected that Recognition would be associated with initiating usual sexual behavior across gender.

Nelson found that the correlation between Dominance and initiation was near zero for men but significantly positive for women. However, because we predicted that dominance would be associated with engaging in sexual behavior only for men and we expected the results for initiation to be similar to those for engaging in sexual behavior, we found our theory to contrast with Nelson's results. Therefore, we refrained from predicting the relationship between dominance and initiation.

Nelson found that the correlation between Submission and initiation was near zero for both genders; hence, we predicted no association between Submission and initiation.

Birth Control and Condom Usage

For lack of previous evidence or theory, no predictions were made for associations between sexual motives and use of birth control. Although no previous evidence existed on relationships between condom usage and sexual motives, it seemed reasonable that the pleasure motive would be associated with not using condoms. In addition, based on the evidence that power may be associated with using condoms for women and with not using condoms for men (Amaro, 1995), we predicted that the dominance motive would be associated with using condoms for women and with not using condoms for men.

Unusual Sexual Behavior

For lack of previous evidence or theory suggesting that the relationships between sexual motives and usual sexual behavior would be different for unusual sexual behavior, the above predictions were tentatively proposed for unusual sexual behavior in the form of research questions.

Table I lists hypotheses based on our predictions.

METHOD

The data for this study were obtained as part of a larger project concerning sexual attitudes and behavior (see Browning *et al.*, 1999).

Respondents

Of the 256 respondents, 166 were women and 90 were men. All were enrolled in a human sexuality class at the University of Hawaii and were told they would

Table I. Hypotheses

1. Women will endorse the Love and Submission motives more and the Pleasure and Conformity motives less than will men, and there will be no gender difference for the Recognition and Dominance motives.
2. Love, Pleasure, and Recognition will be associated with engaging in sexual behavior.
3. Conformity will be associated with abstaining from sexual behavior overall, but will tend to be associated with engaging in sexual behavior for men and with abstaining from sexual behavior for women.
4. For men, Dominance will be associated with engaging in and Submission will be associated with abstaining from sexual behavior, whereas for women, Dominance will be associated with abstaining from and Submission will be associated with engaging in sexual behavior.
5. Love, Pleasure, and Recognition will be associated with initiating sexual behavior across gender, although the association with Love may hold for women only.
6. Conformity and Submission will be unrelated to initiating sexual behavior, although Conformity may be associated with initiating sexual behavior for men and with not initiating sexual behavior for women.
7. Pleasure and Dominance will be associated with not using condoms, except that, for women, Dominance will be associated with using condoms.

have a chance to take some of the love, sex, and intimacy measures to see how it feels to take them. All students chose to participate in the study, and were given bonus points for their participation. Although our sample may not be representative of young American adults, we have no reason to expect any differences to affect relationships between sexual motives and sexual behavior, although this remains an empirical question.

The percentage of participants endorsing various relationship categories was as follows: Not dating anyone right now, 25%; casually dating someone (we've gone out on dates a couple of times), 15%; seriously involved with someone (we've gone out a lot or are going steady), 39%; engaged or cohabiting, 14%; and married, 7%. Those 65 participants who were not dating anyone at the time were deleted from the sample, resulting in 127 women and 64 men in the final sample.

The mean age for the final sample was 23.6 years ($SD = 5.55$, range = 18–61). Reflecting Hawaii's multicultural population, they were from diverse ethnic backgrounds: African (1%), Asian (50%), European (18%), Pacific Islander (16%), and Other (14%).

Participants were asked whether the person they were in a relationship with was a man or a woman: 96% of both the men and women reported that their relationship was with someone of the opposite sex.

Measures

Sexual Motives

The items for our sexual motive scales were selected from Nelson's (1978) dissertation, which reported Chronbach alphas ranging from .77 to .85 along with

evidence of convergent and discriminant validity. We used fewer items in most of our scales and found Chronbach alphas of .64 to .66.⁶

We employed (1) the two items with the highest factor loading in Nelson's love and affection scale (e.g., "Because it's the way I show my partner I love him/her"); (2) the three items with the highest loading in his pleasure factor (e.g., "Because I am a pleasure seeker"); (3) the item with the highest loading in his conformity factor ("Because I want to be like everyone else"); (4) the item with the highest loading in his recognition factor ("Because I'd like to be known as a good lover"); (5) the four items in his dominance scale (e.g., "Because when my partner finally surrenders to me, I get this incredibly satisfying feeling"); and (6) the four items in his submission scale (e.g., "Because I enjoy the feeling of being overwhelmed by my partner").

Respondents were asked to indicate how important each reason was in their own sexual relations (kissing, petting, all sexual activities) rather than in relation to specific sexual behaviors. Response options for each item were on a 4-point scale of "very important," "pretty important," "not too important," and "not important at all."

The possible total scores for the sexual motives of love, pleasure, conformity, recognition, dominance, and submission were 2–8, 3–12, 1–4, 1–4, 4–16, and 4–16, respectively.

Dependent Variables

Respondents were asked to indicate whether they had participated in various sexual activities during the last month with their current sexual partner, and who generally initiated each activity in which they engaged. They were asked to answer honestly and assured that their answers would be kept strictly confidential. The sexual activities ranged from kissing to intercourse and included sexual behaviors that would be considered "unusual" for most people, such as anal sex, bondage, and cross-dressing. (See Appendix, Dependent variables.)

Response options for each item were "Yes" and "No," and for "Who generally initiates this activity?" the response choices were "Me" and "Partner." For purposes of analysis, items 1 through 12 were later categorized as *usual* sexual behaviors and items 13 through 25 were categorized as *unusual* sexual behaviors, but they were not so labeled for participants.

In addition, respondents were asked, "If you have engaged in sexual intercourse during the last month, (1) What percent of the time did you use birth control?" and (2) "What percent of the time did you use condoms?" Response

⁶Although Nelson combined dominance and submission as one factor, he used them as separate scales in regression analyses. Our own confirmatory analysis of the dominance and submission items indicated an excellent fit for a two-factor solution. Thus, we employed dominance and submission as separate scales. Because one focus of this project was on power, we used all four items in the dominance and submission scales. The number of items employed in the other scales varied with their importance for most people in order to increase the extent to which they were used.

options for both questions were on a 5-point scale of 0% (never), 25%, 50%, 75%, and 100% (always).

Questionnaire Format

The questionnaire asked information in the following order: Personal Background (gender, age, ethnicity, dating status, gender of partner), Assets (Resources) of Relationships, Relative Global Power, Sexual Behavior, and Reasons for Engaging in Sexual Behavior.

Procedure

Respondents were administered the questionnaire in groups of four, with each person seated in one corner of a room. Before receiving the questionnaire, an attempt was made to assure respondents of confidentiality by asking each one to put the completed questionnaire in a manila envelope and place it randomly in the pile of questionnaires in a reception box.

RESULTS

Sexual Motive Intercorrelations

Table II shows the sexual motive intercorrelations.

As shown in Table II, Love, Pleasure, and Recognition all correlated positively with each other. Dominance and Submission correlated positively with all the other motives, except that Conformity was significantly correlated only with Submission.

Gender Differences in Sexual Motives

Table III shows the simple correlations between gender and each sexual motive.

Table II. Correlations among Sexual Motives

	LOV	PL	CON	REC	DOM	SUB
Love (LOV)		.34**	-.07	.25**	.31**	.22**
Pleasure (PL)			.08	.43**	.45**	.33**
Conformity (CON)				.13	.14	.19**
Recognition (REC)					.45**	.27**
Dominance (DOM)						.55**
Submission (SUB)						

Note. $N = 187$ for all correlations except those involving Dominance, for which $N = 186$, and those involving Submission, for which $N = 185$.

* $p < 0.05$.

** $p < 0.01$.

Table III. Correlations between Gender and Sexual Motives

Statistic	Sexual motive					
	Love	Pleas	Conf	Recog	Dom	Sub
Correlation	.18	-.19	-.19	.04	.06	.10
N	187	187	187	189	186	185
Probability	.01	.01	.01	.55	.43	.17

Note. A positive correlation indicates greater endorsement by women; Pleas = Pleasure, Conf = Conformity, Recog = Recognition, Dom = Dominance, Sub = Submission.

As shown in Table III, women endorsed Love more and Pleasure and Conformity less than did men, and there was no significant gender difference for Recognition, Dominance, or Submission. Thus, all aspects of hypothesis 1 were confirmed, except that women did not endorse Submission significantly more than did men.

Frequency of Sexual Behaviors

Table IV shows the frequency of each sexual behavior.

As shown in Table IV, the majority of respondents reported engaging in each usual sexual behavior ("dry kissing" through "dog-style" intercourse), and less than 25% of the respondents reported engaging in each unusual sexual behavior ("anal sex" through "using sexual aides"). This provided an empirical basis for our categorization of sexual behaviors as usual and unusual.

Composite Dependent Variables

The following composite dependent variables were employed for data analysis: Usual: number of usual sexual behaviors engaged in during the previous month (possible range of 0–12); Unusual: number of unusual sexual behaviors engaged in during the previous month (possible range of 0–13); Initiating Usual: proportion of usual sexual behaviors engaged in during previous month that were initiated by respondent (possible range of 0–1.00); and Initiating Unusual: proportion of unusual sexual behaviors engaged in during previous month that were initiated by respondent (possible range of 0–1.00).⁷

⁷For both initiation variables, "the proportion of sexual behaviors initiated of those that were reportedly engaged in" was employed rather than simply "the number of sexual behaviors initiated" so that the initiation variables would be independent from the number of sexual behaviors engaged in; this method reduced the correlation between engaging in and initiating usual sexual behavior from .43 to .05, and for unusual sexual behavior from .62 to .05.

Table IV. Frequency of Sexual Behaviors

Sexual behavior	Frequency	Percentage
Dry kissing on the mouth	181	96
French-kissing	166	89
Kissing of neck and ears, "hickeys"	167	89
Hand stimulation of breasts	173	92
Oral stimulation of breasts	162	86
Hand stimulation of male genitals	159	85
Hand stimulation of female genitals	158	85
Fellatio	130	70
Cunnilingus	133	72
Partner on top	150	80
You on top	143	76
Rear vaginal entry ("dog-style")	108	58
Anal sex	22	12
Masturbated self for partner	43	23
Partner masturbated partner for you	43	23
Read erotic literature with partner	34	18
Watched pornographic films with partner	45	24
Tied your partner up	13	7
Tied up by your partner	11	6
Spanked your partner	31	17
Spanked by your partner	31	17
You dressed as the opposite sex	1	0.5
Partner dressed as the opposite sex	4	2
Participated in group sex	4	2
Used sexual aides	30	16

Note. Frequency indicates the number of respondents who reported that they engaged in the behavior during the previous month.

Engaging in Sexual Behavior

Table V shows the simple correlations between sexual motives and engaging in usual and unusual sexual behavior.

Interactions between motives and gender were tested by examining the difference between correlations for men and women via r to z transformations. As shown in Table V, the motives of Love, Pleasure, and Recognition correlated positively with engaging in Usual Sexual Behavior (SB), as predicted in hypothesis 2, and with engaging in Unusual SB.

Conformity correlated negatively with engaging in Usual SB, as predicted in hypothesis 3. Although there was no interaction between Conformity and gender for engaging in Usual SB, there was an interaction between Conformity and gender for Unusual SB in the form predicted by hypothesis 3 [$Z(57, 121) = 2.21, p < 0.05$]. That is, the correlation between Conformity and engaging in Unusual SB was in the positive direction for men (.16) and in the negative direction for women (-.17).

Contrary to hypothesis 4, Dominance did not interact with gender for engaging in Usual SB. For Unusual SB, there also was no interaction; instead, Dominance

Table V. Correlations between Sexual Motives and Engaging in Sexual Behavior

Motive	Sexual behavior							
	Usual				Unusual			
	All	Men	Women	<i>D</i>	All	Men	Women	<i>D</i>
Love	.31**	.14	.40**	.06	.29**	.34**	.25**	ns
Pleas	.22**	.14	.26**	ns	.32**	.30**	.36**	ns
Conf	-.20**	-.12	-.25**	ns	.00	.16	-.17	.05
Recog	.16*	.23	.13	ns	.22**	.09	.28**	ns
Dom	.10	.03	.14	ns	.23**	.26*	.21*	ns
Sub	.05	-.23*	.17	.02	.24**	.24	.23**	ns

Note. Pleas = Pleasure, Conf = Conformity, Recog = Recognition, Dom = Dominance, Sub = Submission; *D* = probability of difference between correlations for men and women; ns = nonsignificant; *N*s ranged from 182 to 186 for all subjects, from 59 to 62 for men, and from 123 to 124 for women.

* $p < 0.05$.

** $p < 0.01$.

correlated positively with engaging in Unusual SB for both men and women. Because the only evidence in Nelson's data consistent with a possible interaction between Dominance and Gender was for frequency of casual sex, tests of Dominance by Gender interactions were conducted on data from only those respondents who were casually dating. The difference between genders was opposite from that predicted in hypothesis 4, and although the interaction was not significant, the correlation between Dominance and engaging in Usual SB was significant for women ($r = .475, n = 20, p < 0.05$) and near zero for men ($r = .04, n = 14, ns$).

Submission interacted with gender for engaging in Usual SB, as predicted in hypothesis 4 [$Z(57, 120) = 2.52, p < 0.02$]. That is, the correlation between Submission and Usual SB was negative for men (-.23, $p < 0.05$) and in the positive direction for women (.17, ns). For Unusual SB, there was no interaction, and instead, as with Dominance, Submission correlated positively with Unusual SB for both genders.

Initiating Sexual Behavior

None of the correlations between sexual motives and Initiating Unusual SB were significant nor were there any significant differences between such correlations for men and women.

Table VI shows the simple correlations between sexual motives and Initiating Usual SB and between sexual motives and condom usage.

As predicted in hypothesis 5, Love interacted with gender for Initiating Usual SB [$Z(58, 119) = 1.73, p < 0.05$]. The correlation between Love and initiation was near zero for men (-.06) and positive for women (.22, $p < 0.05$).

Table VI. Correlations between Sexual Motives and Initiating Usual Sexual Behavior and Condom Usage

Motive	Initiating sexual behavior				Condom usage			
	All	Men	Women	<i>D</i>	All	Men	Women	<i>D</i>
Love	-.04	-.06	.22*	ns	-.06	-.03	-.07	ns
Pleas	.21**	-.06	.22*	ns	-.18*	-.27	-.15	ns
Conf	.09	.20	-.16	.05	.07	.20	-.03	ns
Recog	.06	.27*	-.07	.05	-.09	-.28*	-.03	ns
Dom	.00	.24	.01	.07	.00	-.02	.01	ns
Sub	-.12	.10	-.08	ns	-.06	.05	-.09	ns

Note. Pleas = Pleasure, Conf = Conformity, Recog = Recognition, Dom = Dominance, Sub = Submission; *D* = probability of difference between correlations for men and women; ns = nonsignificant; for Initiating usual sexual behavior, *N*s ranged from 175 to 178 for all subjects, from 57 to 59 for men, and from 118 to 119 for women. For Condom Usage, *N*s ranged from 153 to 156 for all subjects, from 49 to 50 for men, and from 104 to 106 for women.

* $p < 0.05$.

** $p < 0.01$.

Pleasure correlated positively with Initiating Usual SB overall, as predicted in hypothesis 5, but the correlation was significant for women only. For Recognition, the correlation was significantly positive for men only. Thus, hypothesis 5 was only partially supported because Love and Pleasure were associated with Initiating SB for women only, and Recognition was associated with Initiation for men only.

As predicted in hypothesis 6, conformity interacted with gender [$Z(55, 116) = 2.22, p < 0.05$] such that the correlation between Conformity and Initiation of Usual SB was positive for men (.20, ns) and negative for women (-.16, ns).

Also consistent with hypothesis 6, there were no significant correlations with Submission nor a Submission by Gender interaction for Initiating Usual SB. A Submission by Gender interaction for Initiating Unusual SB, however, was nearly significant [$Z(21, 65) = 1.59, p < 0.06$] with a correlation between Submission and Initiation of -.38 ($p = 0.07$) for men and .00 for women.

No prediction was made for the relationship between Dominance and Initiating SB because theoretically, we expected the correlation to be positive for men and negative for women, but Nelson (1978) found the correlation to be near zero for men and positive for women. In our data, the correlation for Initiating Usual SB was .24 for men and .01 for women. The correlation for men and the Dominance by Gender interaction each approached significance ($ps = 0.07$).

Birth Control and Condom Usage

No predictions were made for associations between motives and birth control and no correlations were significant. As predicted in hypothesis 7, Pleasure

correlated negatively with Condom Usage. Contrary to hypothesis 7, there was no interaction between Dominance and gender for Condom Usage.

Relative Importance of Predictor Variables

Regression analyses were conducted for each composite dependent variable (except for Initiation of Unusual SB, for which the sample size was too small) and for Condom Usage in order to gauge the relative importance of predictor variables. Predictor variables in each case were Gender, the six sexual motives, and the interaction between Gender and each motive.

For each composite dependent variable and for Condom Usage, Table VII shows the regression results.

As shown in Table VII, Love, Pleasure, and Conformity added, respectively, .05, .02, and .04 unique R^2 to the model for Engaging in Usual SB; Love, Pleasure, Conformity by Gender, and Recognition by Gender added .02, .05, .03, and .05 unique R^2 , respectively, to the model for Engaging in Unusual SB; and Gender, Pleasure by Gender, Conformity by Gender, and Recognition by Gender added .02, .04, .02, and .03 unique R^2 , respectively, to the model for Initiating Usual SB.

Table VII. Unique Amount of Variance Accounted for by Sexual Motives in Sexual Behavior and Condom Usage

Predictor	Statistic					
	Beta	<i>F</i> +	R^2 +	Model <i>F</i>	df	Model R^2
Engaging in usual sexual behavior						
Love	.24	10.98**	.05			
Pleasure	.15	4.31*	.02			
Conformity	-.19	7.60**	.04	10.26**	3,181	.15
Engaging in unusual sexual behavior						
Love	.15	3.99*	.02			
Pleasure	.26	11.89**	.05			
Conf × Gender	.35	6.61*	.03			
Rec × Gender	-.45	11.12**	.05	10.28**	4,179	.19
Initiating usual sexual behavior						
Gender	-.62	5.54*	.02			
Plea × Gender	-.85	11.34**	.04			
Conf × Gender	.35	5.55*	.02			
Rec × Gender	.50	8.20**	.03	29.27**	4,172	.41
Condom usage						
Pleasure	-.17	5.43*	.04	5.43*	1,151	.04

Note. Plea = Pleasure, Conf = Conformity, Rec = Recognition; *F*+ = *F* increase. R^2 + = R^2 increase; only predictors significant beyond the .05 level are listed.

* $p < 0.05$.

** $p < 0.01$.

Pleasure was the only variable to account for variance in Condom Usage (.04 R^2). No variable accounted for variance in Birth Control Usage.

DISCUSSION

Because statistical significance does not imply social significance, our results are interpreted in terms of our original six questions.

Gender Differences in Sexual Motives

The first question this study asked was: For which sexual motives are there gender differences? Our finding that the Love motive was endorsed more and the Pleasure motive endorsed less by women than by men replicates consistent results of previous research (Carroll *et al.*, 1985; Leigh, 1989; Nelson, 1978; Whitley, 1988). This is also consistent with the evidence that women are more likely than men to make love a prerequisite to engaging in sexual behavior (Reiss, 1960; Taris and Semin, 1997).

Our finding that men endorsed the Conformity motive more than did women is consistent with the only previous data on this motive (Nelson, 1978) and with the evidence that young men are more likely than young women to experience peer pressure to engage in sexual behavior (DeGaston *et al.*, 1996; Muehlenhard and Cook, 1988). Our finding of no gender difference for the Recognition and Dominance motives also matches Nelson's results.

Our finding of no significant gender difference for the Submission motive contrasts with Nelson's (1978) data showing that a higher percentage of women than men rated Submission as their primary sexual motive. Hill and Preston's (1996) finding that men endorsed their Partner Power motive more than did women across three samples stands in contrast to both our results and especially those of Nelson. Although their Partner Power scale and Nelson's Submission scale seem similar, only the Partner Power scale includes items referring to appreciation of one's sexual partner being "forceful" and "aggressive." Considering the prevalence of date rape (Koss *et al.*, 1988), items with such adjectives seem less likely to be endorsed by women than by men. Evidently, the two scales are not equivalent.

Interactions between Sexual Motives and Gender

The second question posed in this study was whether interactions between gender and sexual motives should be included in regression analyses of sexual behavior. For the models of Initiating Usual and Engaging in Unusual SB, our data clearly indicate that they should because interactions between sexual motives and gender accounted for 8% of unique variance in each of these models. Analysis

of simple correlations also revealed a significant interaction between Submission and gender for *usual* sexual behavior. These results indicate that models of both engaging in and initiating sexual behavior would do well to include interactions between gender and sexual motives.

Sexual Motives and Sexual Behavior

Our third question asked if results found in previous research on sexual motives replicate across the full range of sexual behavior. Our results indicate that, with few exceptions, they do replicate for *engaging* in sexual behavior, but that, for *initiating* sexual behavior, there were many differences between our findings and those of Nelson (1978). Thus, further research is needed to clarify relationships between sexual motives, gender, and initiating sexual behavior.

Sexual Motives and Unusual Sexual Behavior

Our fourth question asked if the relationships between sexual motives and sexual behavior differ for usual versus unusual sexual behavior. Most of the sexual motives did display differences in their relationships to both engaging in and initiating usual versus unusual sexual behavior. This suggests the value of distinguishing between usual and unusual SB in sexual motive models.

It is noteworthy that the conformity motive was associated with abstaining from *usual* sexual behavior across gender, suggesting a social norm within our sample to limit usual sexual behavior, whereas for *unusual* sexual behavior, it was associated with engaging in sexual behavior for men and with abstaining from it for women. This suggests that even when no evidence exists of a double standard for usual sexual behavior there still may be one for unusual sexual behavior.

Conformity and Recognition Motives

Our fifth question was whether conformity and recognition should be included in motive models of sexual behavior. As noted above, Conformity accounted for unique variance in engaging in usual sexual behavior and, in interaction with gender, accounted for unique variance in initiating usual and engaging in unusual sexual behavior. This suggests that conformity as a sexual motive deserves a place in motive models of sexual behavior. Consistent with this conclusion are Nelson's (1978) regression analyses in which Conformity was a significant predictor variable for more of his dependent variables than any other motive, and Maticka-Tyndale *et al.*'s (1998) finding that peer group norms contributed to prediction of engaging in casual sex on spring break. Although Conformity may be a less important motive

for people older than our respondents, whose mean age was 24 years, it may be even more important for younger people.

Recognition, in interaction with gender, also accounted for unique variance in the models for initiating usual and engaging in unusual sexual behavior. Nelson's (1978) finding that Recognition predicted frequency of initiation of sexual behavior is consistent with these results. Nelson also found Recognition to be the best predictor of number of coital partners. As with Conformity, Recognition may be less important for people older but more important for people younger than those in our sample. Thus, Recognition appears to be a motive worth including in motive models of both engaging in and initiating sexual behavior.

Sexual Motives and Condom Usage

As predicted, the Pleasure motive was associated with not using condoms. This finding is consistent with Kelly and Kalichman's (1998) evidence that reinforcement value of unprotected anal sex accounted for unique variance in condom usage among gay and bisexual men. As these authors noted, attention to sexual reinforcers may improve HIV risk reduction models.

Why there was no interaction between the Dominance motive and gender for condom usage is unclear. Even measures of relative power in our own data failed to interact with gender for condom usage (see Browning *et al.*, 1999). Gender conflict over condom usage is apparently much more prominent in certain ethnic groups, such as Latinos (Amaro, 1995), and may be uncommon within our sample.

Nelson's Sexual Motives

Our results suggest that Nelson's (1978) model of sexual motives is still useful in accounting for sexual behavior. However, a complete model would include all of Nelson's motives plus Stress Reduction, Procreation, and motives for which scales have not yet been developed or even explored in the literature (e.g., Revenge).

Limitations

Because we could not observe the sexual behavior of our respondents, this study relied on self-reports. We attempted to minimize the pitfalls of this method by ensuring confidentiality of responses and asking participants to recall their sexual behavior only during the previous month in order to reduce forgetting and selective memory. Even so, we cannot rule out the possible influence of such factors.

Our sample, as well as those of Nelson (1978) and Hill and Preston (1996), consisted of college undergraduates only. It is unknown whether our findings

generalize to other segments of the population. However, the main gender differences in sexuality that explain much of our results are based on extensive evidence from diverse samples (e.g., Oliver and Hyde, 1993). Finally, the correlational nature of our data precludes drawing conclusions regarding causality.

Directions for Future Research

The evidence of peer pressure for young men to engage in and young women to abstain from sexual behavior (e.g., DeGaston *et al.*, 1996) coupled with men's eagerness to engage in sexual behavior led us to predict that the Dominance motive would be associated with engaging in sexual behavior for men and with abstaining from it for women. However, we found no evidence of such an interaction. Because Nelson (1978) found evidence of this interaction for frequency of casual sex only, we examined the data for only those respondents who were casually dating. To our surprise, dominance was associated with engaging in sexual behavior for *women* only. Although speculative, this suggests the possibility that some women may use sex to gain power in casual dating relationships. Because this finding was based on a small subset of our sample, future research with larger samples should explore relationships between the Dominance motive, gender, relationship status, and sexual behavior.

Future research could also examine possible sexual motives beyond those in the current literature, such as self-identity, ego-enhancement, and revenge, and test equivalence of Nelson's and Hill and Preston's scales.

Another line of inquiry might examine ethnic, cross-cultural, and age differences in relationships among sexual motives, gender, and sexual behavior. Yet another question is whether the double standard is stronger for unusual than for usual sexual behavior.

CONCLUSION

Our results point to the importance of including interactions with gender and the sexual motives of Conformity and Recognition in models of sexual behavior, and to the value of distinguishing between usual and unusual sexual behavior in these models.

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APPENDIX

Dependent Variables

1. "Dry" kissing, on the mouth
2. French-kissing (open mouth/tongue)
3. Kissing of neck and ears, "hickeys"
4. Stimulation of breasts with hands
5. Oral stimulation of breasts
6. Stimulation of male genitals with hand
7. Stimulation of female genitals with hand
8. Fellatio (oral stimulation of male genitals)
9. Cunnilingus (oral stimulation of female genitals)

Sexual Intercourse

10. Partner on top
11. You on top
12. Rear vaginal entry ("dog-style")
13. Anal sex
14. Masturbated yourself for your partner
15. Had your partner masturbate him/herself for you
16. Read erotic literature with your partner
17. Watched pornographic films with your partner

Dominance/Submission

18. Tied your partner up
19. Been tied up by your partner
20. Spanked your partner
21. Been spanked by your partner

Cross-Dressing

22. I dressed as the opposite sex
23. My partner dressed as the opposite sex
24. Participated in a threesome, group sex, or swapped partners
25. Used sexual aids (e.g., vibrator)

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