

Longitudinal Study of Sexual Satisfaction among Older Adults:  
Findings from the National Social Life, Health, and Aging Project

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## **Abstract**

Using data from two waves of the National Social Life, Health, and Aging Project (NSHAP), this study examines the relationships of health and vitality, relationship characteristics, sexual practice and sexual attitudes with baseline sexual satisfaction and with changes in sexual satisfaction over time. The results show that sexual interest, partner's health, partner's positive support, sexual foreplay and permissive sexual attitudes are associated with both men's and women's physical pleasure and emotional satisfaction from their sexual relationship at baseline. Additional factors influencing physical pleasure include partner's sexual problems, time spent together or separate with spouse, frequency of sex for women, and partner's negative support, frequency of vaginal intercourse, and the belief that sex ability declines with age for men. Additional factors influencing emotional satisfaction include partner's sexual problem, time spent with partner, partner's negative support for women, and marital/cohabiting status, partner's negative support for men. Overtime, the effects of partner's positive support and frequency of sex persist for both men's and women's physical pleasure and emotional satisfaction.

## **Introduction**

With rapid population aging there has been growing interest in the sexual lives of older adults (Lindau et al., 2007; Gilles Trudel, Turgeon, & Piché, 2000). Sexual satisfaction of older adults has been linked to their physical and emotional health as well as their general satisfaction with life (Hirayama & Walker, 2011; Laumann et al., 2006; Lindau & Gavrilova, 2010), and sexual distress is associated with anxiety and depression (Gilles Trudel, Villeneuve, Prévile, Boyer, & Fréchette, 2010). Past research also suggests linkages between sexual satisfaction and relationship quality, sexual attitudes and sexual behaviors (Carpenter, Nathanson, & Kim, 2009; DeLamater, Hyde, & Fong, 2008; Galinsky; Heiman et al., 2011; Woloski-Wruble, Oliel, Leefsma, & Hochner-Celnikier, 2010). Yet, research based on representative samples of older adults is still scarce. In addition, most studies on older adults used cross-sectional data, and thus the causal directions between sexual well-being and other physical, behavior, and relational constructs remain unclear. In this study, we use data from two waves of the National Social Life, Health, and Aging Project (NSHAP) to address three research questions: (1) Do individual characteristics, relationship factors, sexual practice and sexual attitudes affect older adult's

sexual satisfaction; (2) Do these factors have different effects for physical pleasure and emotional satisfaction; (3) Do these effects differ for men and women?

### *General Physical Health and Vitality*

Previous studies reported that physical health and vitality affect sexual satisfaction. Self-rated health, diabetes, high blood pressure, blood pressure medication, depression, heavy smoking, and alcohol consumption have been considered (Everaerd & Laan, 2000; Everaerd, Laan, Both, & van der Velde, 2000). (L. J. Waite, Laumann, Das, & Schumm, 2009) found sexuality among older adults vary with age; the proportions in sexual partnership, sexual behaviors, attitudes all differ substantially by age. However, they also found age is not significantly associated with either physical pleasure or emotional satisfaction. Sexual interest is a strong predictor of sexual satisfaction for both men and women (Chao et al., 2011; Kontula & Haavio-Mannila, 2009). Some studies treated health and vitality as mere control variables, while others have paid particular attention to the effects of age and health for men, and have compared these effects to the impact of relationship quality for women (Dunn, Croft, & Hackett, 1999; Dunn, Croft, & Hackett, 2000; Gilles Trudel et al., 2000). Carpenter et al. (2009) found that the association between women's sexual satisfaction and their physical health and sexual problems remain even after controlling for relationship and sexual behavioral variables, but the association between men's sexual satisfaction and health and sexual problems are largely explained by sexual behaviors.

### *Relationship Characteristics*

Relationship issues have been considered by many practitioners to be at the heart of sexual problems (Kaplan, 1974; Masters & Johnson, 1970; Parish et al., 2007; Southern, 1999; L. Waite & Joyner, 2001; Young, Denny, Young, & Luquis, 2000). Married and cohabiters are more satisfied than other type of romantic relationships. Among older adults, relationship quality seems to play more important role in determining sexual satisfaction (Dundon & Rellini, 2010). Much of this research focused on male-female differences in the relative importance of various relationship characteristics and suggests that relationship factors have stronger effects on women's sexual satisfaction than men's (Dunn et al., 1999; Gilles Trudel et al., 2010). Waite and Joyner (2001) suggest that commitment has a positive role for both men and women. Carpenter et al. (2009), however, found very few significant associations between relationship factor and physical pleasure and emotional satisfaction for both men and women,

though they did not include direct measures of relationship quality. In addition, partner's health and sexual problems have been found to affect sexual functioning which, in turn, affects sexual satisfaction (Hirayama & Walker, 2011; Kontula & Haavio-Mannila, 2009).

### *Sexual Practices*

Existing research shows a link between behavioral aspects of sex life and sexual satisfaction among older adults. Frequency of intercourse and frequency of orgasm are shown to be associated with older adults' sexual satisfaction (Carpenter et al., 2009; DeLamater et al., 2008; Heiman et al., 2011; Woloski-Wruble et al., 2010). (Galinsky) found that infrequent sexual touching is associated with arousal and orgasm difficulties among older adults. Other studies, however, showed weaker association between sexual activity and sexual satisfaction. For example, Carpenter et al. (2009) found that sexual problems, sexual frequency, and orgasm are not significantly associated with middle aged men's physical pleasure and emotional satisfaction, though they are associated with middle-aged women's.

### *Sexual Attitudes*

Sexual attitudes are a product of cultural influence and social and sexual experiences. Sexual attitudes can also shape individual's sexual behaviors. Using the NSHAP data, (McFarland, Uecker, & Regnerus, 2010) found that although religion is largely unrelated with sexual frequency and satisfaction, religious integration in daily life has a positive association with physical pleasure from sex among older adults. Some studies suggest that cultural norms and values exert greater influence on women's interpretations of their sexual responses than on men's interpretations of their own sexual response (Baumeister, 2000; Baumeister & Tice, 2001). Carpenter et al. (2009) found that men and women who believe that making love without sex is ok have lower levels of emotional satisfaction. However, they found that women who disagree that men need sex more have higher levels of physical pleasure, but men with this attitude have lower levels of physical pleasure.

## **Method**

### *Data*

We used data from two waves of the National Social Life, Health and Aging Project (NSHAP), which surveyed a nationally representative probability sample of community-dwelling individuals aged 57–85 years selected from households across the United States screened in 2004.

In-home interviews were conducted in English and Spanish by professional interviewers between July 2005 and March 2006, yielding 3,005 respondents out of a possible 4,400 (1,455 men and 1,550 women). The weighted sample response rate was 75.5% (O’Muirheartaigh, Eckman, & Smith, 2009). The protocol was approved by the University of Chicago and the National Opinion Research Center institutional review boards; all respondents gave written informed consent. To decrease respondent burden, minimize in-home interview time, and maximize content, the interview used a modularized format. Respondents were randomly assigned to one of six paths. A follow-up interview was conducted in 2010 and 2011. Among the wave 1 respondents, 2,261 were re-interviewed, 318 died, 115 too ill to respond and 311 were lost. We restricted our analysis to 1,352 respondents who were married, cohabiting, or had a romantic sexual partner at the time of the first interview and who had sex in the 12 months before the interview. Further limited to those who were not missing on key variables, the analytical sample includes 444 women and 753 men.

### *Measures*

Sexuality among older adults is one of the core areas the NSHAP addresses. It includes more detailed measures of sexual attitudes and behavioral, sexual well-being, and relationship quality (Waite et al., 2009).

*Sexual satisfaction.* We include two measures of sexual satisfaction: physical pleasure and emotional satisfaction with the current partner. Respondents were asked, “How physically pleasurable did/do you find your relationship with (PARTNER) to be?” and “How emotionally satisfying did/do you find your relationship with (him/her) to be?” The 5-point response scale for both questions ranges from “not at all” to “extremely.” The two items have a high correlation (.61 for men and .70 for women); however, previous research suggests that they are influenced by different predictors in younger cohorts, and we would like to see whether this is the case for the older adults.

*Individual characteristics, health and vitality.* These include age measured in years since birth, race/ethnicity (white, black, Hispanic and other races), education (less than high school vs. high school graduated), self-rated health, sexual problems and sexual interest. Self-rated health was based on a question asking respondents to rate their physical health on a 5-point scale ranging from “poor” to “excellent.” Sexual problems were a count of “yes” responses to seven questions asking whether the respondent had experienced for several months or more over the

past year (i) lacked interest in having sex; (ii) were unable to climax; (iii) came to a climax too quickly; (iv) experienced physical pain during intercourse; (v) did not find sex pleasurable; (vi) felt anxious just before having sex about his/her ability to perform sexually; (vii) (for males) had trouble getting or maintaining an erection, or (for females) had trouble lubricating. Sexual interest is a summary index of two items. The first question asked the respondent “How important a part of your life would you say that sex is” with the 5-point response scale ranges from “not at all important” to “extremely important,” and the second question asked the respondent “About how often do you think about sex” with the 6-point response scale ranging from “never” to “several times a day.” The index is the average of the standardized scores on these two items with higher values indicating greater interest in sex. The Cronbach’s alpha is .69 for males and .75 for females.

*Relationship characteristics.* These include marital/cohabiting status, partner’s health, partner’s sexual problems, time spent with the partner and support from the partner. We separate those who were married or cohabiting from those who had a romantic sexual partner, but were not living together. Partner’s health was based on the respondent’s report of his/her partner’s physical health with 5-point scale ranging from “poor” to “excellent.” Partner’s sexual problems were a count of “yes” responses to seven questions which asked the respondent to report whether his/her partner had experienced the seven sexual problems described above for several months or more over the past year. Respondents were asked whether they like to spend free time doing things together with, some together and some different, or doing different/separate things with their partner. They were also asked how often: (i) they can open up to him/her about worries; (ii) they can rely on the partner; (iii) the partner makes too many demands; and (iv) the partner criticizes. The 3-point response scale for each item ranges from “hardly ever or never” to “often.” Factor analysis showed the four items loaded on two separate factors and thus we averaged scores on the first two items to create an index of positive support (alpha is .54 for males and .68 for females) and we averaged scores from the last two items to create an index to measure negative support (alpha is .60 for males and .57 for females).

*Sexual practice.* Respondents who reported that they had engaged in partnered sex in the past 12 months were asked a series of questions about the frequency of sex with their spouse or partner; how often sex included vaginal intercourse; how often they participated in oral sex; and how often sex included hugging, kissing, or other ways of sexual touching. We separate those

who reported having sex at least once a week from those who reported having sex less often. The 5-point response scale to the questions on vaginal intercourse, oral sex and sexual foreplay ranges from “never” to “always.”

*Sexual attitudes.* We created an index of permissive sexual attitudes based on five questions. The first three questions asked the respondent about infidelity: (i) “Below is a list of statements. For each one, please choose if you think this is always wrong, almost always wrong, wrong only sometimes, or not wrong at all. All of these statements refer to adults. A married person having sexual relations with someone other than their marriage partner.” (ii) “What if the spouse is in advanced stages of dementia such as Alzheimer’s or other mental disease?” (iii) “What about if the spouse has a serious, long-term physical illness and cannot have sex?” The (iv) item asked “For the next set of statements, choose whether you strongly agree, agree, disagree or strongly disagree. These are just general statements; they are not about your specific relationship. I would not have sex with someone unless I was in love with them” and (v) “My religious beliefs have shaped and guided my sexual behavior.” The permissive sexual attitude index is the average of responses to these five items; it ranges from 1 to 4 with higher values indicating more permissive attitudes and the Cronbach’s alpha of .76 for males and .72 for females. To gauge an individual’s belief on the effect of aging on sexuality, the respondent was asked to what extent they agree that the statement “the ability to have sex decreases as a person grows older,” and the 4-point response scale ranges from strongly disagree to strongly agree.

## **Results**

### *Descriptive Statistics*

Descriptive statistics for all Time 1 variables stratified by gender are presented in Table 1. Older adults generally reported high levels of physical pleasure and emotional satisfaction in their relationship with their spouse/partner. However, the average scores for men are significantly higher than those for women on both physical pleasure (3.25 vs. 2.97) and emotional satisfaction (3.27 vs. 3.04). Men and women also differ on sexual problems, sexual interest, negative partner support, and permissive sexual attitudes; compared to men, women have more sexual problems than men (1.70 vs. 1.45), weaker interest in sex (.27 vs. .69), lower levels of negative partner support (1.36 vs. 1.55), and less permissive sexual attitudes (1.59 vs. 1.94). In addition, women reported less frequent foreplay than men (3.61 vs. 3.71) and women

are less likely to agree that sexual ability declines with age (2.83 vs. 2.91), but the gender differences on these two items are only marginally significant. Gender differences are other variables are not significant.

#### *Cross-Sectional Predictors of Physical pleasure*

Tables 2 and 3 present results from ordered logistic regressions of physical pleasure and emotional satisfaction at Time 1 on individual characteristics, health and vitality, relationship characteristics, sexual practice and sexual attitudes and beliefs. Four hierarchical models were estimated for each sexual satisfaction measure with the four groups of predictors added one by one. These models were run separately for women and men. We also tested interactions between gender and these predictors.

Hispanics have a significantly lower level of physical pleasure than whites net of other individual characteristics, health, sexual problems and sexual interest (Table 2, Model 1). Sexual interest has a strong positive association with women's physical pleasure, and sexual health has a marginally significant negative association with women's physical pleasure. When relationship characteristics were added in Model 2, partner's health and positive partner support are positively associated with women's physical pleasure while partner's sexual problems and spending time separately from the partner are negatively associated with women's physical pleasure. Also the odds ratios of "other race" and high school graduate become significant; those of "other race" reported lower levels of physical pleasure than whites and high school graduates reported lower levels of physical pleasure. These associations remain significant when sexual behavioral variables were added in Model 3. Of sexual behavior variables, having sex at least one a week and more frequent foreplay are positively associated with greater pleasure. Vaginal intercourse is marginally associated with women's physical pleasure. Among the attitudinal items, people with more permissive sex attitudes have lower levels of physical pleasure (Model 4)

For men, net of other individual characteristics, health and sexual interest, blacks and people of "other race" reported lower level of physical pleasure than whites (Table 2, Model 2). Those with more sexual problems also reported lower level of physical pleasure. Better physical health and greater sexual interest are positively associated with physical pleasure. When relationship characteristics were added in Model 2, the difference between blacks and whites and the effect of self-rated health are no longer significant. Partner's health and positive support are associated with increased physical pleasure while partner's negative support is associated



decreased physical pleasure. When sexual behaviors were added in Model 3, number of sexual problems is no longer significant. Having sex at least once per week, more frequent vaginal intercourse, and more sexual foreplay are positively associated with physical pleasure. In Model 4, both permissive sexual attitudes and the belief that sex ability decreases with age are associated with decreased physical pleasure.

#### *Cross-Sectional Predictors of Emotional Satisfaction*

Women's age and sexual interest are positively associated with emotional satisfaction while being Hispanic and sexual problems are negatively associated with women's emotional satisfaction (Table 3, Model 1). When relationship characteristics were added in Model 2, sexual problems become insignificant. Partner's health and positive support are associated with increased emotional satisfaction while spending time separately from partner and partner's negative support are associated with decreased emotional satisfaction. With individual and relationship characteristics controlled for, sexual foreplay is significantly associated with emotional satisfaction (Model 3). Permissive sexual attitudes are associated with decreased emotional satisfaction (Model 4).

#### *Physical Pleasure and Emotional Satisfaction over Time*

Next, we run ordinal regressions of sexual satisfaction measures at Time 2 on individual characteristics, health, sexual interest, relationship characteristics, sexual behaviors and attitudes, and corresponding sexual satisfaction measures at Time 1. These analyses are restricted to those who have the same spouse or sexual partner at Time 2 as at Time 1. The results are presented in Table 4.

For women, controlling for physical pleasure at Time 1 and other variables, partner's positive support and having sex at least once per week at Time 1 are positively associated with physical pleasure at Time 2. Women's age has a marginally significant positive association with physical pleasure at Time 2, while belief that sex ability declines with sex has a marginally significant negatively association with physical pleasure at Time 2. For men, partner's positive support and having sex at least once per week are also positively associated with their physical pleasure at Time 2. In addition, sexual interest, marital/cohabiting status, frequency of vaginal intercourse and oral sex are also positively associated with men's physical pleasure at Time 2. Hispanic men reported lower levels of sexual satisfaction at Time 2 than white men.

For men, controlling for emotional satisfaction at Time 1 and other variables, partner's positive support and having sex at least once a week are positively associated with emotional satisfaction at Time 2. Being in "other race" and having better health at Time 1 are associated with lower level of emotional satisfaction at Time 2, although these associations are only marginally significant. For men, partner's positive support is also associated with higher level of emotional satisfaction at Time 2, but being Hispanic, being older, spending time separately from partner and partner's negative support are negatively associated with men's emotional satisfaction at Time 2. Somewhat surprising, men's sexual problems and belief that sex ability declines with age are *positively* associated with their emotional satisfaction at Time 2.

### **Discussion** (to be added)

This study examined the relationships of health and vitality, relationship characteristics, sexual practice and sexual attitudes with baseline sexual satisfaction and with changes in sexual satisfaction over time. The results show that sexual interest, partner's health, partner's positive support, sexual foreplay and permissive sexual attitudes are associated with both men's and women's physical pleasure and emotional satisfaction from their sexual relationship at baseline. Additional factors influencing physical pleasure include partner's sexual problems, time spent together or separate with spouse, frequency of sex for women, and partner's negative support, frequency of vaginal intercourse, and the belief that sex ability declines with age for men. Additional factors influencing emotional satisfaction include partner's sexual problem, time spent with partner, partner's negative support for women, and marital/cohabiting status, partner's negative support for men. Overtime, the effects of partner's positive support and frequency of sex persist for both men's and women's physical pleasure and emotional satisfaction.

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Table 1. Descriptive statistics by gender at Time 1.

	Women		Men		<i>p of gender difference</i>
	Mean/%	SE	Mean/%	SE	
Physical pleasure (0-4)	2.97	0.06	3.25	0.04	***
Emotional satisfaction (0-4)	3.04	0.05	3.27	0.04	***
Age (57-85)	64.94	0.28	65.35	0.34	
Black	8.0		7.3		
Hispanic	6.3		7.5		
Other race	1.7		2.4		
High school graduate	88.4		87.3		
Self-rated health (1-5)	3.54	0.06	3.55	0.04	
Sexual problems (0-7)	1.7	0.08	1.45	0.05	*
Sex interest (-1.40-2.05)	0.27	0.04	0.69	0.04	***
Married/cohabiting	94.2		93.2		
Partner's health (1-5)	3.51	0.06	3.46	0.05	
Partner sexual problems (0-7)	1.32	0.09	1.17	0.06	
Free time separate (1-3)	1.61	0.04	1.54	0.05	
Positive partner support (1-3)	2.82	0.02	2.83	0.02	
Negative partner support (1-3)	1.36	0.03	1.55	0.03	***
Having sex at least once a week	32.1		34.5		
Freq vaginal intercourse (0-4)	3.43	0.06	3.47	0.05	
Freq oral sex (0-4)	0.85	0.06	0.95	0.06	
Freq foreplay (0-4)	3.61	0.04	3.71	0.03	+
Permissive sexual attitudes (1-4)	1.59	0.04	1.94	0.02	***
Sexual ability declines with age (1-4)	2.83	0.04	2.91	0.03	+
N	444		753		

Note: results are weighted and adjusted for survey design.

Table 2. Predictors of physical pleasure with primary sexual partner for women and men at Time 1.

	Women				Men			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
Age	1.00 (0.03)	1.01 (0.47)	1.02 (0.90)	1.02 (0.88)	0.98 (1.61)	0.98+ (1.70)	0.99 (1.09)	0.99 (1.21)
Black	0.87 (0.40)	1.11 (0.30)	1.37 (0.79)	1.39 (0.78)	0.49+ (1.78)	0.82 (0.75)	0.80 (0.72)	0.87 (0.51)
Hispanic	0.45** (3.12)	0.50** (2.98)	0.47** (3.11)	0.57* (2.07)	0.65 (1.38)	0.68 (1.04)	0.58 (1.55)	0.63 (1.23)
Other race	0.50 (1.59)	0.29* (2.31)	0.31** (3.07)	0.37** (2.82)	0.34* (2.19)	0.43+ (1.72)	0.48+ (1.71)	0.48+ (1.73)
High school graduate	0.54 (1.64)	0.41* (2.43)	0.31** (3.28)	0.29** (3.15)	<b>1.12</b> (0.42)	<b>1.24</b> (0.69)	<b>1.16</b> (0.54)	<b>1.12</b> (0.41)
Self-rated health	1.10 (0.77)	1.13 (0.99)	1.05 (0.38)	1.08 (0.62)	1.12+ (1.68)	1.03 (0.40)	1.01 (0.08)	1.02 (0.35)
Sexual problems	0.86+ (1.72)	0.96 (0.42)	0.97 (0.26)	0.98 (0.23)	0.84** (3.05)	0.89+ (1.92)	0.94 (1.06)	0.97 (0.60)
Sex interest	3.78** (6.81)	3.38** (5.98)	2.72** (5.45)	2.80** (5.77)	<b>1.94**</b> (4.06)	<b>2.01**</b> (4.50)	<b>1.67**</b> (3.08)	<b>1.80**</b> (3.54)
Married/cohabiting		0.52 (1.30)	0.53 (1.33)	0.52 (1.37)		0.94 (0.21)	0.97 (0.11)	0.81 (0.68)
Partner's health		1.30* (2.41)	1.29* (2.35)	1.24+ (1.96)		1.34** (3.43)	1.33** (3.17)	1.32** (3.24)
Partner sexual problems		0.85+ (1.82)	0.83* (2.31)	0.83* (2.38)		0.96 (0.74)	0.96 (0.62)	<b>0.97</b> (0.53)
Free time separate		0.48** (4.74)	0.55** (3.92)	0.55** (3.73)		<b>0.76</b> (1.19)	0.77 (1.21)	0.80 (1.00)
Positive partner support		2.92** (3.12)	2.43* (2.63)	2.25* (2.32)		3.00** (3.51)	2.60** (2.95)	2.39** (2.68)
Negative partner support		1.03 (0.11)	1.23 (0.75)	1.30 (0.97)		<b>0.49**</b> (4.82)	<b>0.50**</b> (4.78)	<b>0.52**</b> (4.42)
Having sex at least once a week			1.78* (2.33)	1.74* (2.30)			1.37+ (1.94)	1.31 (1.62)
Freq vaginal intercourse			1.26+ (1.76)	1.21 (1.45)			1.33* (2.52)	1.31* (2.48)
Freq oral sex			1.07 (0.57)	1.17 (1.38)			1.02 (0.24)	1.13 (1.19)
Freq foreplay			1.95** (5.57)	1.92** (5.36)			1.59** (2.88)	1.57** (2.77)
Permissive sexual attitudes				0.57** (3.23)				0.56** (4.43)
Sex ability declines with age				0.84 (1.00)				0.76* (2.09)
N	444	444	444	444	753	753	753	753

Note: results are weighted and adjusted for survey design. Significant gender interactions are indicated in red bold.

t statistics in parentheses

+ significant at 10%; \* significant at 5%; \*\* significant at 1%

Table 3. Predictors of emotional satisfaction with primary sexual partner for women and men at Time 1.

	Women				Men			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
Age	1.03* (2.01)	1.03+ (1.92)	1.03* (2.01)	1.03+ (1.91)	<b>0.97*</b> (2.34)	<b>0.98*</b> (2.23)	<b>0.98*</b> (2.10)	<b>0.98*</b> (2.24)
Black	0.66 (1.60)	1.11 (0.31)	1.45 (1.20)	1.46 (1.23)	0.36* (2.51)	0.70 (1.05)	<b>0.68</b> (1.01)	0.72 (0.85)
Hispanic	0.43** (3.37)	0.53* (2.27)	0.49* (2.22)	0.56+ (1.78)	<b>0.74</b> (1.16)	0.79 (0.76)	0.73 (1.04)	0.78 (0.78)
Other race	1.21 (0.43)	0.66 (0.77)	0.73 (0.54)	0.81 (0.36)	0.61 (1.15)	0.89 (0.33)	1.03 (0.07)	1.07 (0.18)
High school graduate	1.36 (0.96)	1.06 (0.17)	0.91 (0.26)	0.89 (0.31)	1.52 (1.40)	1.66+ (1.73)	1.47 (1.38)	1.46 (1.36)
Self-rated health	0.88 (1.42)	0.91 (1.03)	0.85+ (1.72)	0.87 (1.44)	<b>1.09</b> (1.25)	0.95 (0.72)	0.94 (0.84)	0.95 (0.71)
Sexual problems	0.82** (2.90)	0.88 (1.52)	0.90 (1.22)	0.90 (1.26)	0.87+ (1.93)	0.93 (1.18)	0.96 (0.64)	0.97 (0.45)
Sex interest	2.02** (3.87)	1.61* (2.60)	1.58* (2.25)	1.62* (2.41)	1.51* (2.35)	1.63** (2.77)	1.53* (2.49)	1.62** (2.81)
Married/cohabiting		1.35 (0.65)	1.35 (0.68)	1.29 (0.57)		2.17** (2.69)	2.25** (2.74)	1.96* (2.30)
Partner's health		1.34* (2.49)	1.32* (2.43)	1.28* (2.08)		1.63** (5.50)	1.64** (5.55)	1.63** (5.68)
Partner sexual problems		0.92 (1.20)	0.89+ (1.77)	0.89+ (1.78)		1.04 (0.59)	1.03 (0.52)	1.04 (0.58)
Free time separate		0.58** (3.78)	0.60** (3.30)	0.61** (3.17)		0.69 (1.64)	0.69 (1.60)	0.70 (1.49)
Positive partner support		8.52** (6.10)	6.88** (5.21)	6.46** (4.87)		<b>4.98**</b> (6.27)	4.17** (5.87)	3.96** (5.79)
Negative partner support		0.60* (2.60)	0.67* (2.04)	0.70+ (1.72)		0.41** (4.60)	0.41** (4.62)	0.42** (4.57)
Having sex at least once a week			0.81 (0.94)	0.79 (0.97)			0.98 (0.09)	0.95 (0.24)
Freq vaginal intercourse			1.09 (0.72)	1.06 (0.50)			1.15 (1.23)	1.13 (1.06)
Freq oral sex			1.06 (0.60)	1.14 (1.23)			0.97 (0.25)	1.04 (0.30)
Freq foreplay			1.74** (4.79)	1.71** (4.56)			1.58** (3.67)	1.58** (3.75)
Permissive sexual attitudes				0.65* (2.66)				0.65** (3.35)
Sex ability declines with age				0.95 (0.36)				0.86 (1.29)
N	444	444	444	444	753	753	753	753

Note: results are weighted and adjusted for survey design. Significant gender interactions are indicated in red bold. t statistics in parentheses

+ significant at 10%; \* significant at 5%; \*\* significant at 1%

Table 4. Predictors of physical pleasure and emotional satisfaction for women and men at Time 2.

	Physical pleasure		Emotional satisfaction	
	Women	Men	Women	Men
Age	1.05+ (1.80)	1.00 (0.14)	1.03 (1.62)	<b>0.97*</b> (2.31)
Black	1.72 (1.60)	1.06 (0.15)	0.65 (1.00)	0.82 (0.58)
Hispanic	0.74 (0.54)	0.30** (2.93)	0.39 (1.56)	0.31* (2.26)
Other race	0.80 (0.42)	0.95 (0.05)	0.45+ (1.79)	0.37 (1.44)
High school graduate	0.79 (0.59)	0.67 (1.22)	0.60 (1.29)	1.00 (0.01)
Self-rated health	0.92 (0.57)	1.10 (0.97)	0.78+ (1.78)	1.01 (0.05)
Sexual problems	1.00 (0.02)	1.14 (1.56)	0.97 (0.33)	<b>1.27**</b> (3.40)
Sex interest	1.22 (0.80)	1.38+ (1.86)	0.91 (0.38)	0.99 (0.04)
Married/cohabiting	0.92 (0.10)	2.04+ (1.72)	0.85 (0.24)	1.22 (0.47)
Partner health	1.06 (0.40)	1.09 (0.83)	1.00 (0.02)	0.96 (0.31)
Partner sexual problems	0.99 (0.10)	0.96 (0.65)	1.08 (1.16)	0.94 (0.90)
Free time separate	0.92 (0.34)	0.98 (0.11)	0.76 (1.18)	0.64+ (1.91)
Positive partner support	2.59* (2.08)	3.58** (4.74)	5.08** (3.12)	3.51** (4.31)
Negative partner support	1.12 (0.36)	0.86 (0.81)	0.58 (1.62)	0.68+ (2.00)
Having sex at least once a week	1.98* (2.29)	1.48+ (1.99)	2.66** (3.08)	1.44 (1.59)
Freq vaginal intercourse	1.00 (0.01)	1.36* (2.52)	1.11 (0.68)	1.15 (0.91)
Freq oral sex	1.06 (0.44)	1.22+ (1.80)	1.00 (0.03)	1.11 (0.77)
Freq foreplay	1.05 (0.28)	0.94 (0.35)	0.89 (0.58)	1.11 (0.69)
Permissive sexual attitudes	0.62 (1.67)	0.99 (0.06)	0.72 (0.94)	0.89 (0.81)
Sex ability declines with age	0.75+ (1.69)	0.77 (1.58)	1.08 (0.41)	1.26+ (1.78)
Physical pleasure at Time 1	2.42** (5.22)	3.23** (7.96)		
Emotional satisfaction at Time 1			3.30** (6.17)	2.77** (6.54)
N	300	540	305	545

Note: Limited to those who are with the same Time 1 partner. Results are weighted and adjusted for survey design. Significant gender interactions are indicated in red bold.

t statistics in parentheses

+ significant at 10%; \* significant at 5%; \*\* significant at 1%