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## **Sexual Satisfaction in the Seventh Decade of Life**

John DeLamater, Janet S. Hyde, and Mei-Chia Fong

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**Sexual Satisfaction in the Seventh Decade of Life**

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## Sexual Satisfaction in the Seventh Decade of Life

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10 *This research presents data on the sexuality of men and women in their mid-sixties. The data are from the Wisconsin Longitudinal Study 2003 mail survey; analyses include 2156 men and 1955 women. Respondents reported having sex 1.7 times per month. Regression analyses were used to identify variables associated with sexual behavior and satisfaction. Included were measures of physical health, sexual functioning, psychological distress, and satisfaction with the relationship. Frequency of sexual activity was significantly predicted by reports that partner lost interest in sex. Satisfaction with the sexual relationship was predicted by marital/relationship satisfaction and frequency of sexual activity. Sexual expression remains a significant aspect of intimate relationships in the seventh decade of life.*

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Empirical studies of the sexual behavior and satisfaction of representative samples of people in the United States are few in number. The most frequently cited study is the National Health and Social Life Survey (NHSL),  
 25 based on interviews with a probability sample of 3432 men and women, conducted in 1992 (Laumann, Gagnon, Michael, & Michaels, 1994). Unfortunately, for budgetary reasons, the researchers limited the sample to persons between the ages of 18 and 59 (Laumann, et al., 1994, p. 52). The most recent

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study of a probability sample is the 2002 National Survey of Family Growth (NSFG; Mosher, Chandra, & Jones, 2005) based on interviews with 12,571 males and females. Because this survey focuses on reproduction, the sample was limited to men and women ages 15–44. 30

Empirical studies of the sexuality of persons over 60 are even fewer in number. Brecher and the editors of *Consumer Reports Books* (1984) reported the results of the largest survey of older persons to date, based on 4246 questionnaires from persons over 50 years of age. These data were from a convenience sample explicitly recruited to participate in a study of sexuality. Recently, two papers have been published reporting data from the American Association of Retired Persons *Modern Maturity* Sexuality Survey (DeLamater & Sill, 2005; DeLamater & Moorman, 2007). This survey involved 1384 persons ages 45 and older. Participants were volunteers and were told in advance that the survey included questions about sex. 35 40

The paucity of data on a representative sample of persons over 60 has both applied and substantive consequences. In the applied realm, without such data, mental, physical, and sexual healthcare professionals do not have a baseline on which to evaluate the sexual health and sexual functioning of older persons. In the United States and elsewhere, men and women are living longer, and remaining sexually active longer (Laumann, et al., 2006). The development of drugs and devices to treat sexual dysfunctions, many of which are thought to increase with age, highlights the need for better information about sexual functioning beyond age 60. 45 50

The absence of data also hinders efforts to develop our conceptions of and theories about sexuality and intimacy in later life. Social scientists are increasingly calling for a comprehensive life-course perspective on sexuality, in order to better comprehend the interconnectedness of sexual expression at various ages and life stages (DeLamater, 2002; Lindau, Laumann, Levinson & Waite, 2003). 55

Plans to resurvey the participants in the Wisconsin Longitudinal Study provided an opportunity to collect limited data on the sexuality of this cohort. The study began with a survey of more than 10,000 randomly selected members of the high school graduating class of 1957 across the state of Wisconsin. Follow-up data have been collected at several points in time, and a major follow-up, involving both interviews and mailed questionnaires, was conducted in 2003–2004. In the original recruitment and follow-ups, there was no mention of questions about sex; thus, there is no self-selection bias based on knowing the research was about sex. The average age of the participants was 64.3, allowing analyses of data from a large sample of this age group. 60 65

We first present the conceptual framework, briefly reviewing research and theory on sexual satisfaction. This leads directly to six hypotheses. We will describe the methods employed to test them. We will present normative data on this sample of 64 and 65 year-olds, and the results of the tests. The article concludes with a discussion of contributions and limitations. 70

## CONCEPTUAL FRAMEWORK

### Sexual Satisfaction

Sexual satisfaction figures prominently in a number of analyses of intimate and marital relationships (Blumstein & Schwartz, 1983; Edwards & Booth, 1994; Lawrance & Byers, 1995). Lawrance and Byers defined it as “an affective response arising from one’s subjective evaluation of the positive and negative dimensions associated with one’s sexual relationship.” (p. 268; emphasis in original). In a recent review of the literature, Sprecher and Cate (2004) defined it as “the degree to which an individual is satisfied or happy with the sexual aspect of his or her relationship.” (p. 236). These definitions share an emphasis on affect/evaluation of the sexual relationship. Edwards and Booth (1994) pointed out that sexual satisfaction has rarely been studied in persons over 60, an observation that remains true today. This article is intended to fill this gap in the literature.

There are several reasons to study the nature of and influences on sexual satisfaction. Several studies have reported that sexual satisfaction is linked to marital quality and marital stability (e.g., Edwards & Booth, 1994) but the data were from cross-sectional surveys so the directionality of the relationship is not clear. Yeh, Lorenz, Wickroma, Conger, & Elder (2006), using cross-lagged models to analyze longitudinal data from a midlife sample, concluded that sexual satisfaction influences marital quality, both directly and indirectly, via an influence on marital instability. Given the importance of the marital relationship as a source of companionship and social support, particularly to older adults, the study of sexual satisfaction is valuable.

Published research on married couples that included measures of sexual satisfaction or related constructs such as subjective sexual well-being finds that most participants reported very high or high satisfaction (Sprecher & Cate, 2004). Given the link between satisfaction and marital stability, this is not surprising; persons experiencing low satisfaction are likely to divorce. This might be less true of older persons, for whom divorce may be unappealing, due to distaste for being single again, fear of being alone, or both.

### Theories of Sexual Satisfaction

Several theories have been offered to explain the importance of sexual satisfaction, and why most persons in intimate relationships are satisfied. The interpersonal exchange model of sexual satisfaction proposes that sexual satisfaction is a result of the rewards (e.g., physical pleasure, sense of intimacy) and costs (e.g., time, effort) that the person experiences in the sexual relationship; the balance of rewards and costs is evaluated according to what the person feels she or he deserves, and the perception of the partner’s reward/cost balance (Lawrance & Byers, 1995). Satisfying sexual interactions are a reward that contributes to marital satisfaction (Yeh et al., 2006).

Laumann et al. (1994) measured sexual satisfaction with two items: how physically pleasurable did you find your relationship with . . . , and how emotionally satisfying did you find your relationship with . . . ? Eighty-seven percent of spouses reported being “extremely” or “very” physically pleased, and 84% reported being “extremely” or “very” emotionally satisfied. The researchers offered an “economic” perspective. The commitment and exclusivity associated with an intimate relationship gives one a greater incentive to invest in “partner-specific skills,” including skills that enhance the pleasure and satisfaction of sex with the partner. Also, it is more cost-effective to remain in a long-term relationship than to search for new partners.

### Influences on Sexual Satisfaction

We next review the published literature on sexual behavior and satisfaction in later life. We include influences on behavior for two reasons. First, frequency of sexual activity and satisfaction are closely related (Sprecher & Cate, 2004; Young, Denny, Luquis, and Young, 1998). Second, there are a limited number of studies of each. We review biological, psychological, and social influences.

In the biological realm, the important variables are age and physical health. With respect to age, frequency of sexual behavior in men and women declines steadily into older age, and to a lesser extent, there is diminution in sexual desire (Maurice, 1999). Some researchers have attributed these declines to increasing incidence of illness and/or medication use. However, in their study of sexual desire in a sample of persons age 45 and older, DeLamater and Sill (2005) found that controlling for illness and medication use, there was still a significant negative effect of age on sexual desire in both men and women.

Call, Sprecher, and Schwartz (1995) analyzed data from the 1988 National Survey of Families and Households, a representative sample of 7463 adults (average age = 45.7). Focusing on the frequency of marital sexual activity (frequency of sexual intercourse with the spouse in the past month), they reported that in regression analyses, age was the strongest predictor; as age increased, frequency decreased. The frequency among persons 50–54 was 5.5 times per month, declining to 2.4 times per month among persons 65–69, and .8 times a month among persons 75 or older. However, the researchers stated that much of the decline was due to a decrease in the proportion of couples engaging in intercourse rather than sexually active couples gradually decreasing; persons over 75 who were sexually active reported a frequency of 3 times per month.

Physical health includes overall ratings or assessments of physical health, and as appropriate, measures of illness, medications, and limitations related to physical condition. Numerous studies of small samples link declines in frequency of sexual behavior with various chronic conditions, including cardiovascular disease, hypertension, diabetes mellitus, and arthritis (Schiavi, 1999).

155 However, most of these studies are of samples of men and women who have been diagnosed with the condition, often with no comparison group. Also, persons with chronic conditions are often taking prescription drugs that have adverse effects on sexual functioning, such as anti-hypertension medications.

In their cross-national study of subjective sexual well-being, Laumann  
160 et al. (2006) reported that self-rated health (on a four-point scale) was positively associated with sexual well-being. The relationship was stronger in a group of Asian cultures, including China, Japan, and Taiwan, than in the cluster of western cultures.

Mental health is an important influence on sexual functioning. Depres-  
165 sion is associated with loss of interest in sex (Cyranowski et al., 2004; Nicolosi, Moreira, Villa, & Glasser, 2004). Other psychological disorders may be related to sexual functioning. Drugs used to treat these disorders can cause sexual side effects. Anti-psychotic medications, SSRI anti-depressants, monoamine oxidase (MAO) inhibitors, and sedative drugs may contribute to decreasing  
170 levels of sexual desire (Schiavi, 1999; Seagraves, 1989).

Turning to social factors, Social Influencethe presence or absence of a sexual partner is extremely important in understanding differing levels of sexual activity among aging women and men. Many people, especially in the cohort of persons who are currently over 65, consider sexual intimacy to be  
175 only or most appropriate in marriage, and death and divorce leave many older Americans unmarried. Older women are particularly disadvantaged since the sex ratio becomes increasingly imbalanced with age. Among persons 55 to 64, the sex ratio is 92 (men for every 100 women), among those 65 to 74, it is 83 (Smith, 2003).

180 For those who do have a sexual partner, satisfaction with the relationship is an important influence on sexuality. Several studies have noted that married respondents are more satisfied with their sexual relationship than single ones (e.g., Lawrance & Byers, 1995). This may reflect the fact that married persons are more likely to develop the ability to accommodate the partner's  
185 needs and to satisfy him or her sexually (Laumann et al., 1994). There is substantial literature on marital satisfaction or marital quality. Broadly speaking, the nature of the couple's interaction or their interpersonal exchanges determines the level of satisfaction. In their review, Bradbury, Fincham, and Beach (2001) identify several important aspects of the interaction. One is time  
190 spent together; this is obviously a prerequisite for building and sustaining intimacy. Another is the degree of conflict in these exchanges, or frequency of disagreements over important issues. A third element is satisfaction with the partner's personality and treatment of the respondent.

Finally, marital satisfaction is positively associated with frequency of  
195 sexual activity, both of sexual intercourse and related aspects, such as frequency of orgasm per sexual encounter and sexual uninhibitedness (Young et al., 1998). We would expect, therefore, that marital satisfaction would be negatively related to the incidence of sexual dysfunction.

## The Current Research

Data collected in the 2003–2004 wave of the Wisconsin Longitudinal Study (WLS) provide an opportunity to study patterns of sexuality and sexual satisfaction in the seventh decade of life. The WLS sample is unique in providing data collected from several thousand persons in their mid-sixties, by far the largest sample of this cohort (most of them born in 1939). Furthermore, the original sample was a representative one, not one recruited for research on sexuality. Finally, the WLS provides measures of the variables discussed above. **200** **205**

A basic goal is to present descriptive information on this population. In addition, based on the literature reviewed above, we tested six hypotheses regarding sexual activity and sexual satisfaction among couples in their 60s: **210**

1. Frequency of sexual activity will be: (a) positively predicted by physical health; (b) positively predicted by satisfaction with the relationship; (c) negatively predicted by depression; and (d) negatively predicted by experience of sexual dysfunction.
2. Sexual satisfaction will be: (a) positively predicted by frequency of sexual activity; and (b) positively predicted by physical health. **215**

## METHODS

### Participants

The WLS began with a 1/3 random sample ( $N = 10,317$ ) of women and men who graduated from Wisconsin high schools in 1957. The original purpose of the study was to assess the demand for higher education in Wisconsin. Additional waves of data were collected in 1964, 1975, and 1992. In 2003–2004, 1-hour telephone interviews and 48-page mail surveys were attempted with all surviving members of the cohort (8858) and completed with 6279 men and women, representing a 71% response rate. The data collection was managed for WLS by the University of Wisconsin Survey Center. All data collection since 1990 has been approved by the Social and Behavioral Sciences IRB, University of Wisconsin-Madison. **220** **225**

The WLS sample is broadly representative of white, non-Hispanic American men and women who have completed at least a high school education. The WLS sample is mainly of German, English, Irish, Scandinavian, Polish, or Czech ancestry. Minorities are not well-represented: there is only a handful of African American, Hispanic, or Asian persons in the sample, reflecting the population of Wisconsin in 1957. About 19% of the WLS sample is of farm origin, and that is consistent with national estimates of persons of farm origin in cohorts born in the late 1930s. In 1964, 1975, and again in 1992, about two-thirds of the sample lived in Wisconsin, and about one-third lived elsewhere **230** **235**

in the United States or abroad. At the time of the 2003 data collection, the age range was 62 to 67, with 87% age 64 or 65.

## 240 Measures

### CURRENT MARITAL STATUS

Marital status was determined by responses to a sequence of questions about past and present marital circumstances. Questions concerning respondents' sexual behavior were included in the mailed questionnaire; these items were  
245 prefaced by the question, "Are you currently married?" Respondents who replied "No" were asked, "Do you have a sexual partner?" (yes, no). Thus, persons who answered "No" to both questions were excluded from the analyses reported in this article. Questions about sexual behavior were completed only by respondents who were married or had a partner. Sixteen percent  
250 (472) of eligible men (2635) and 19% (660) of eligible women (2623) refused to answer the questions regarding sexual behavior. The sample size for the variables included in the analyses range from 2242 to 4952, depending on skip patterns.

### HEALTH

255 A basic index of biological functioning is self-reported overall physical health. The question asked "How would you rate your health at the present time?" The response categories were very poor (1), poor, fair, good, and excellent (5). Another measure of health was provided by the respondent's answer to the following item; "I see myself as someone who is full of energy." The  
260 response categories were strongly agree (1) to strongly disagree (6). We also included self-reported circulatory problems: "How much do circulatory problems *currently* interfere with what you like to do?" The response categories were not at all (1) to a great deal (5).

### MENTAL HEALTH

265 The measure of mental health was a summary score constructed from responses to 23 items from the Center for Epidemiological Studies-Depression (CES-D) (Radloff, 1977). Each of the items asked "How many days *during the past week* did you . . ." The respondent was asked to circle the number of days she or he experienced each; an overall score was created by summing  
270 responses across the items. Scores ranged from 0 to 112. Note that this is a nonstandard method of administering and scoring the CES-D, so scores reported here are not comparable to those reported in other research.

### SATISFACTION WITH RELATIONSHIP

275 The survey included a number of measures of the intimacy or closeness of the marital relationship. The first is a measure of time spent alone with spouse in

the past month. Response categories were: never (1), about once a month, 2 or 3 times per month, about once a week, 2 or 3 times per week, and almost everyday (6). The second is the question "How much did you experience each of the following feelings during this typical week? Loved." Response categories were: not at all (1), a little, quite a lot, and a great deal (4). **280**

The mailed survey included questions about the frequency of disagreements with the spouse, taken from the National Survey of Families and Households (Sweet, Bumpass, & Call, 1988). The series was prefaced with "How often, if at all, in the past year have you had *open disagreements* about each of the following?" (Emphasis in original). The topics were "Household **285** tasks," "Money," and "Time spent together." Response categories were never (1), less than once a month, several times per month, about once a week, several times per week, and almost everyday (6). A scale was created by taking the mean of the responses to the three items. The Cronbach's alpha for the scale was .47 (N = 4770). A fourth item inquired about frequency of **290** disagreement about sex.

The survey contained a six-item scale measuring satisfaction with the relationship with the spouse. The specific items asked "How satisfied are you with . . .:" day-to-day support and encouragement, spouse's personality, amount of consideration shown respondent, the way disagreements are settled, how decisions are made, and how well the spouse listens to respondent. **295** The response categories were very dissatisfied (1), dissatisfied, somewhat dissatisfied, somewhat satisfied, satisfied, and very satisfied (6). The scores on the six items were averaged to create a summary measure. The alpha for the scale was .94 (N = 4780). **300**

#### FREQUENCY OF SEX

This variable was measured by the question, "During the past 12 months, about how often did you have sex with your husband/wife or partner?" Response categories were: once a day or more, 3 to 6 times per week, once or twice a week, 2 to 3 times a month, once a month or less, and not at all. **305** For regression analyses, in order to create a measure with a common metric, we recoded responses into times per month: 30, 18, 6, 2.5, 1, and 0. The refusal rate on this item was 16% among men and 19% among women.

#### SEXUAL FUNCTIONING

As part of a series of questions about health problems, respondents were **310** asked "How often have you had difficulties with or painful sexual intercourse in the past six months?" Response categories were not at all (1), monthly or less often, about once a week, and daily or more often (4). A follow-up question asked "How much discomfort has this symptom caused you in the *past 6 months?*" (emphasis in original). Response categories were none (1), **315** a little, some, and a lot (4).

Following the question on frequency of sex, respondents read “If you have decreased or stopped sexual activities with your wife/husband or partner, please indicate whether each of the following was a reason.” A list of  
320 nine reasons followed, including my illness, spouse/partner’s illness, I lost interest, and my spouse/partner lost interest. Response categories were yes and no. About 62% of the respondents answered “Yes,” to at least one of these four items, suggesting that at least half of the sample had experienced a decline in frequency.

### 325 SEXUAL SATISFACTION

Two items assessed facets of sexual satisfaction. The questions were, “In the past 12 months, how physically pleasurable did you find your sexual relationship with your husband/wife or partner to be?” and “In the past 12 months, how emotionally satisfying did you find your sexual relationship with your  
330 husband/wife or partner to be?” These items were taken from the National Health and Social Life Survey (Laumann, et al., 1994). The response categories were not at all (1), slightly, moderately, very, and extremely (5). The two items were averaged. The alpha for the scale was .95.

## RESULTS

### 335 Descriptive Results

The means and standard deviations of variables included in the analyses are displayed in Table 1. The means provide a snapshot of the WLS sample of 64–65 year olds and their sexual activity. Ninety-three percent (3840) were married, and an additional 271 persons reported having a sexual partner. On  
340 the self-rating of health, the average is 3.76, which lies just below “good.” In terms of energy, the average person only slightly agreed that she or he is “full of energy.” Only 305 persons reported that circulatory problems interfere with their activities.

Of particular interest is the picture of the relationships of these men  
345 and women. They reported spending time alone with their spouse almost everyday. They indicated that they felt loved by their spouse at least “quite a lot” in the past week. On the three-item index, they reported less than one disagreement per month about household chores, money, and spending time together. Sixty-four per cent reported that they never have open  
350 disagreements about sex, 27% reported less than one per month, and 9% reported more frequent disagreements. On the six-item scale, they reported satisfaction with the relationship with their spouse. These, on average, are rewarding relationships, characterized by little conflict. As noted earlier, the interpersonal exchange model posits that rewarding relationships are satis-  
355 fying ones.

**TABLE 1.** Descriptive Statistics (Before Centering)

Variable	Mean	SD
Age	64.36	.72
Marital Status:		
Married	93%	
Has sexual partner	7%	
Health		
Physical Health (self-rating; 1–5, 5 = Excellent)	3.76	.98
Full of energy (self-rating; 1–6, 6 = Strongly Disagree)	2.67	1.17
Circulatory problems interfere (N = 305)	2.36	1.11
Psychological Distress (CES-D)	13.98	14.28
Relationship		
Time spent alone together in past month (1–6, 6 = everyday)	5.60	.89
Felt loved in past week (1–4, 4 = a great deal)	3.36	.79
Frequency of disagreements past year	1.10	2.92
Satisfaction with relationship	4.82	.99
Sexual Functioning		
Difficulties with or painful intercourse	1.18	.57
How much discomfort	1.21	.66
I lost interest	25%	
Spouse/partner lost interest	30%	
My illness	22%	
Spouse/partner's illness	28%	
Frequency of sex (times/month)	1.72	1.18
Marital satisfaction	3.49	1.12

With respect to sexual functioning, the average person reported no difficulties with intercourse or painful intercourse; those who did characterized it as causing little or no discomfort. Among persons who reported a decline in sexual activity, 30% attributed it to spouse or partner losing interest, 22% to their own illness, 28 percent to partner/spouse's illness, and 25% to their own loss of interest. Thus, there is evidence of some loss of interest in sex, and of illness leading to declines in sexual activity among these people in their mid-60s. **360**

### Frequency of Sexual Activity

Frequency of sexual activity was hypothesized to be: positively predicted by physical health; positively predicted by satisfaction with the relationship; negatively predicted by depression; and negatively predicted by experience of sexual dysfunction. **365**

To assess these hypotheses we carried out hierarchical multiple regression analyses. In step 1 of the analysis, we included three measures of physical health (self-rated health, energy, and reported circulatory problems), psychological distress (CES-D), and the six measures of sexual functioning (experienced pain, and if so, amount of discomfort; partner or respondent losing interest; partner or respondent illness). In step 2, we added four measures of **370**

**TABLE 2.** Regression Analysis on Predictors of Frequency of Sex

Predictors	Model 1 $\beta 1$	Model 2 $\beta 2$
Step 1		
Physical health	.108	.095
Energy	.018	.022
Circulatory problems	.049	.052
Psychological distress	-.062	-.022
Difficulties/pain with intercourse	-.053	-.050
How much discomfort	.096	.094
My illness	-.021	-.034
Partner's illness	-.185*	-.178
I lost interest	-.188	-.169
Partner lost interest	-.291**	-.265**
Step 2		
Time spent alone		.079
Felt loved		-.054
Frequency of disagreements		-.013
Satisfaction with relationship		.093
R <sup>2</sup>	.227	
Adjusted R <sup>2</sup>	.148	.135
R <sup>2</sup> Change	.227**	.020

\*p &lt; .05

\*\*p &lt; .01

375 the relationship with spouse. In step 3, we added the interactions of gender with physical health, psychological distress, and satisfaction with the relationship. All variables were centered. The results, using pairwise deletion for missing data, are shown in Table 2.

380 In model 1, none of the measures of physical health were significantly associated with frequency. Also, depression scores were not significantly associated with frequency. On the other hand, the beta coefficients for two measures of sexual functioning were significant. Participants who reported that the frequency of sex had declined because of partner's illness or loss of interest reported less frequent sexual activity. In model 2, the four measures  
385 of the quality of the relationship were entered. The frequency of time spent alone together, feeling loved, and of disagreements were not associated with frequency of sex. In step 3, none of the interactions were associated with significant betas (not shown). Thus, the results provide some support for only one hypothesis, that frequency of activity is associated with the experience  
390 of sexual dysfunction, specifically related to loss of interest or illness. The adjusted R<sup>2</sup> of model 2 is modest, .135, and is smaller than the R<sup>2</sup> of model 1.

### Satisfaction with Sexual Relationship

We hypothesized that sexual satisfaction would be: positively predicted by frequency of sexual activity; and positively predicted by physical health. We

**TABLE 3.** Regression Analysis on Predictors of Sexual Relationship Satisfaction

Predictors:	Model 1 $\beta_1$	Model 2 $\beta_2$	Model 3 $\beta_2$
Step 1			
Physical health	.079	.042	.002
Energy	.003	.004	-.006
Circulatory problems	.007	.019	-.004
Psychological distress	-.180	-.082	-.073
Difficulties/pain with intercourse	-.042	-.031	-.009
How much discomfort	.071	.060	.020
My illness	.051	.011	.026
Partner's illness	-.115	-.090	-.014
I lost interest	-.197*	-.156	-.082
Partner lost interest	-.274**	-.205*	-.092
Step 2			
Time spent alone		.081	.047
Felt loved		-.048	-.025
Frequency of disagreements		-.023	-.017
Satisfaction with relationship		.321**	.281**
R <sup>2</sup>	.228	.336	.475
Adjusted R <sup>2</sup>	.149	.238	.390
R <sup>2</sup> Change	.228**	.109**	.139**

\*p &lt; .05

\*\*p &lt; .01

Q4

conducted hierarchical multiple regression analyses using the two-item index of satisfaction with the sexual relationship as the outcome. Again, in step 1 of the analysis, we included three measures of physical health (self-rated health, energy, and reported circulatory problems), psychological distress (CES-D), and six measures of sexual functioning. In step 2, we added four measures of the relationship with spouse. In step 3, we entered the frequency of sexual activity. In step 4, we added the interactions of gender with physical health, psychological distress, and frequency of sex. The results, again using pairwise deletion, are shown in Table 3. All variables are centered.

The beta coefficients for two of the variables entered in step 1 are significant. Again, both are measures of sexual functioning. Persons who reported a decline in sexual activity due to they or their partner losing interest in sex reported less frequent activity. This suggests that low or inhibited sexual desire is a problem for some of these persons/couples. None of the coefficients for the other measures of functioning or physical health were significant. Also, depression was not significantly related to sexual relationship satisfaction.

In step 2, satisfaction with the relationship was significantly associated with satisfaction with the sexual relationship. The coefficient for partner lost interest in sex remained significant. Finally, in step 3, the coefficient for frequency of sex was substantial and positive. Again, none of the interactions with gender were significant (not shown). The variables in the analysis

explained a substantial amount of the variance in satisfaction; the adjusted  $R^2$  for model 3 is .39. The change in  $R^2$  at each step is also significant. Thus, there is strong support for the hypothesis that sexual satisfaction is related to frequency of activity. Sexual satisfaction is also related to satisfaction with  
420 the relationship. There is no support for the hypothesis that satisfaction will be positively associated with physical health.

## DISCUSSION

The results present a very positive picture of the physical, sexual, and relationship health of this sample of more than 4000 64- and 65 year-old men  
425 and women. Especially noteworthy are the measures of quality of marital and sexual relationships; participants spent time alone with their partner almost daily, felt loved, and rarely had open disagreements with him/her. Overall, they reported high levels of satisfaction with their relationships. These men and women reported engaging in sex twice a month, and few reported dif-  
430 ficulties with painful intercourse. Those who experienced declining sexual activity attributed it to loss of interest or illness.

Measures of selected biological, psychological, and social influences were associated with sexuality in this sample. In the analyses with frequency of sexual activity as the outcome, there were significant coefficients associ-  
435 ated only with one indicator of sexual dysfunction, reports of partner losing interest in sex. One hypothesis is that declining interest in sex reflects age-related androgen insufficiency. None of the measures of health or of the quality of the relationship were significant. In this sample, with many respondents reporting good health, physical health is not a significant correlate of  
440 frequency of sex. The  $R^2$  for this analysis is a modest .08.

These results are consistent with the symbolic interactionist perspective, which suggests that people in long-term relationships develop a sexual script that governs their relationship so that sexual activity becomes habitual. Thus, within limits, activity does not depend on daily or weekly fluctuations  
445 in health or relationship characteristics. Turning to the respondent's satisfaction with his or her sexual relationship, measures of physical health were not related to sexual satisfaction. However, in step 1, reports of both self and partner losing interest were negatively related to it. Again, measures of characteristics of the relationship, such as the amount of time spent together,  
450 feeling loved, and the frequency of disagreements were not significantly associated with sexual relationship satisfaction. (However, the measure of frequency of disagreements had a poor alpha.) Satisfaction with the relationship and frequency of sexual activity were strongly positively associated with sexual relationship satisfaction. The  $R^2$  for model 3 was a substantial .39.

455 Thus, both the quality of the relationship with the partner and the frequency of sexual expression are related to sexual satisfaction for both men

and women. These findings are consistent with those of Waite and Joyner (2001), analyzing data from the National Health and Social Life Survey, of persons age 18 to 59, who also found that frequency of sexual activity was a strong predictor of satisfaction with the emotional and physical aspects of the respondent's current relationship. 460

We predicted that frequency of sexual activity would be related to physical health, satisfaction with the relationship, depression, and reported sexual dysfunction. We predicted that sexual relationship satisfaction would be related to frequency of sexual activity and physical health. The data from our sample, using the measures available, support one of the hypotheses involving frequency, and one of the hypotheses about sexual expression. The most obvious difference between WLS participants and the samples in the research we reviewed is age. Our participants were all in their 60s. They may be generally physically and mentally healthy, and the substantially less healthy may have been lost to death, illness, or attrition. The finding that relationship characteristics are not related to sexual activity is more surprising; as we suggested above, it may be that sexual activity is governed by scripts that have evolved over a long period of time, with the persons adopting behaviors that fulfill their own and their partner's needs. Thus, in the seventh decade sexual expression may reflect long-standing patterns of adjustment, not week-to-week fluctuations in health and relationships. 470 475

One limitation of this research is the limited measures available for some of the variables of interest. This reflects the fact that the WLS historically has not included measures of sexual activity and functioning. Precisely because of that, this sample was not recruited for sex research, and thus is less selective and more representative than most sex research. The other limitation is that the sample does not include people who did not finish high school. 480

## CONCLUSION

The results demonstrate that nearly 50 years after graduating from high school, many of these adults are sexually active and satisfied with their sexual relationship. This satisfaction is related to both the quality of the relationship and the frequency of sexual activity. 485

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