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Changes in the Frequency of Marital Intercourse from Panel Data

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Three waves of panel data from a sample of urban U.S. couples in which the wife was under 30 years of age at the first interview show that frequency of intercourse declined about 25% in a 4-year period. Declines were greatest among those with the shortest length of marriage.

KEY WORDS: frequency of intercourse; sexual intercourse; panel data; marital sex; changes in sexual behavior.

INTRODUCTION

This article presents data on changes in frequency of intercourse over time from a panel study of young urban married couples in the United States followed over the period 1974-1978. It examines changes in the frequency of intercourse over the 4-year period and explores correlates of change in the frequency of intercourse.

The literature of the behavioral sciences is replete with examples of incorrect inference concerning changes in behavior over time in individuals on the basis of inferences from cross-sectional data of individuals differing in age. Terman and Miles (1936) reported that older individuals scored lower on masculinity-femininity scales, while individuals studied over time scored higher at later ages (Kelley, 1955). Schaie has demonstrated in a series of studies that in cross-section individuals past middle age scored lower on intellectual skills, while individuals over time did not show a decline in the same skills. Similar findings have resulted when

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cross-sectional and panel studies of personality change by age were compared (Schaie and Parnham, 1976).

It has been observed since ancient times that frequency of intercourse declines with age in human beings. Survey data from the twentieth century, using cross-sectional data in every case, indicate that frequency of marital intercourse declines with age, starting at the earliest ages of marriage (Kinsey *et al.*, 1953; Westoff, 1974). This decline has variously been attributed to biological decline in capacity of males and boredom with repetition of sex with the same partner. In a recent article we have shown that age of the woman explains more decline than age of the husband (Udry and Morris, 1978). All of these data are clouded by the fact that cross-sectional samples were used, during periods when data from several sources indicate that frequency of intercourse for the whole society has been changing (Kinsey *et al.*, 1953; Westoff, 1974). This makes changes from cross-sectional studies difficult to interpret.

The present data allow us to examine changes in the frequency of marital intercourse in a panel of couples over a short time span. This time period is from 1974 to 1978. It is a particularly useful period of time to examine, because it is only a decade removed from the 1965-1970 time span in which Westoff (1974) reported from two cross-sectional studies that the frequency of intercourse went *up* when women from the same birth cohorts were compared in 1965 and 1970.

The women in this study were interviewed in 1974, 1977, and 1978, in the first few months of each year. Their husbands were interviewed in 1977 and 1978. All the women were under 30 years of age at the time of the first interview. All interviews were by women interviewers. At the time of first interview, these couples were residents of 16 selected cities across the United States with populations in excess of 100,000 in 1970 and were chosen by an area probability sample design. The purpose of the study was to identify factors which influence childbearing. A single question was included which asked each respondent how many times intercourse was experienced with the spouse in the past 4 weeks. The question was the same at each interview. We present data only for those women who were interviewed all three times. Table I displays the background characteristics of the sample.

VALIDITY OF THE REPORTS OF FREQUENCY OF INTERCOURSE

No doubt many factors interfere with accurate reporting of the frequency of intercourse. Data from many studies in the past indicate that husband and wife reports correlate rather well, and that is usually taken as

Table I. Characteristics of the Sample

	Percent	*N*		Percent	*N*
Education of husband			Education of wife		
< 12 yr	18.8	(96)	< 12 yr	19.4	(99)
12 yr	38.7	(198)	12 yr	48.3	(248)
> 12 yr	42.5	(217)	> 12 yr	32.3	(166)
Total	100%	(511)	Total	100%	(513)
Age of husband			Age of wife		
< 25	26.6	(136)	< 20	5.7	(29)
25-29	47.3	(242)	20-24	39.2	(201)
30-34	21.6	(111)	25-29	55.1	(282)
35+	4.5	(23)			
Total	100%	(512)	Total	100%	(512)
Parity at time 1			Yearly household income at time 1		
0	29.6	(152)	< 8,000	25.3	(130)
1	32.9	(169)	8,000-10,999	27.3	(140)
2	25.1	(129)	11,000-14,999	25.3	(130)
3 or more	12.3	(63)	15,000 or more	22.0	(113)
Total	100%	(513)	Total	100%	(513)

an indication of the validity of reports. In this study, husband and wife reports correlate $r = 0.72$ at time 2, and $r = 0.72$ at time 3, which is some indication of validity. If one is willing to make the assumption that factors which interfere with accurate reporting of frequency of intercourse are constant (with random noise) in the same individual from one interview to the other, the validity problems seem less imposing.

ANALYSIS

Table II reports the mean frequency of intercourse at each interview and the mean decline between interviews. Each mean is significantly

Table II. Mean Frequency of Intercourse in 4 Weeks and Mean Change, 1974-1978, as Reported by Wives[a]

Time	Mean frequency in 4 weeks	*N*	Period	Mean individual change
1974	10.01	467	1974-1977	−1.54
1977	8.45	484	1977-1978	− .77
1978	7.75	500	1974-1978	−2.34

[a] All differences in means significant at the 0.05 level.

Table III. Frequency Distribution of Individual Changes in Frequency of Intercourse 1974-1978 as Reported by Wives

Change	Percent
−6 or more	28.5
−5 to −1	28.7
0	10.5
+1 to +5	21.2
+6 or more	11.0

different (0.05 level) from the other two. Mean declines were computed from individual data, not from subtracting group means at each interview. Frequency of intercourse shows a 23% decline in 4 years in this young sample.

In any presentation of means, as in Table II, it is difficult to get a clear picture of the distribution of the changes over the time period in individuals. While the mean change is negative, some women obviously increased their frequency over the time period. Table III presents the distribution of changes in frequency from first to last interview. Here it can be seen that about one-third of the sample report an increase in frequency over the interval, more than half report a decline, and one in ten report no change. Many of the small changes represent the effect of instability of intercourse from month to month and the random error in recall of the number of episodes of intercourse in the last month. Looking at the extremes, 28.5% report a decrease in frequency of more than five per month, and 11% report an increase of more than five per month.

CORRELATES OF CHANGE IN FREQUENCY OF INTERCOURSE

Table IV shows the mean frequency of intercourse at time 1 and declines between time 1 and time 3 by age of wife and duration of marriage at time 1. Table IV shows the expected pattern of initial differences in frequency by age of wife. It also shows that during the 4-year period, frequency of intercourse declined most in the youngest group and least in the oldest group (still in their early 30s by the end of the study period). During the 4 years, frequency decline by 30% in the youngest group and by 18% in the oldest group. Declines are similar by duration of marriage.

Since husband's age and his own reports of intercourse were available, we ran comparable analyses for time 2 and time 3 only, using husband's age and husband's reports of frequency of intercourse. Since we failed to obtain interviews from some of the husbands whose wives were interviewed, the data do not represent strictly the same couples, but the

Table IV. Mean Frequency of Intercourse in 4 Weeks and Mean Change, 1974-1978, as Reported by Wives, by Wife's Age and Duration of Marriage in 1974

	N	Mean frequency in 1974	Mean change 1974-1978
Age			
Under 20	28	13.34	−4.07
20-24	185	10.45	−3.01
25-30	253	9.29	−1.70
Duration of marriage			
Less than 4 yr	166	11.36	−3.90
4-6	139	8.86	−1.84
7 or more	139	9.54	−1.14

analyses lead to the same conclusions. There is one peculiarity worth noting. Husbands who were interviewed at times 2 and 3 and who were over 35 at time 2 reported an *increase* in frequency (as did their wives). But the wives of men over 35 at time 2 who were not interviewed both times reported a *decrease* over the year's time. For reasons we can only guess, availability for interview was related to an increase in frequency for husbands over 35 (but not for other ages). Readers may wish to speculate on the mechanism which generated this finding.

We next examined the differential declines in frequency of intercourse by education of the wife. Table V shows that frequency did not differ initially by educational category. An examination of the changes over 4 years indicates that frequency declined by almost twice as much in the group with more than high school education as in the group with less than high school education.

COMPARISON OF EXTREME GROUPS

We compared the characteristics of those showing a large decrease in frequency of intercourse with those showing a large increase. We used a *t* test of difference in means, and we report differences significant at the five

Table V. Mean Frequency of Intercourse in 4 Weeks, by Wife's Education, and Mean Change, 1974-1978, as Reported by Wives

Education	*N*	Mean frequency in 1974	Mean change 1974-1978
Under 12	91	9.98	−1.63
12	225	10.13	−2.13
Over 12	151	9.85	−3.07

percent level or beyond. Those women in the large increase group (compared to those in the large decrease group) (1) were less likely to be employed, both at the beginning and at the end of the period; (2) were less likely to intend or want more children; (3) were more likely to be using a highly effective contraceptive at the end of the period; (4) were more likely to have shifted to a more effective contraceptive method during the period.

The extreme groups did not differ from one another in age of spouses, births during the study, education of the husband, household income, or marital satisfaction at the close of the period of study.

REGRESSION ANALYSIS

Several interrelated variables all have significant bivariate relationships with rate of decline in frequency of intercourse: age of husband and wife, length of marriage, wife's education, and age at marriage. To sort out priority of effects, these variables were entered into stepwise regressions. Since age at marriage, age, and length of marriage cannot be entered simultaneously (any two mathematically subsume the other), three models were run, deleting one of these three variables each time. When length of marriage is deleted, both wife's age and age at marriage are significantly related to rate of decline. Both models containing length of marriage show it to be the only significant variable. Education does not enter any of the three models as significant, nor does husband's age. Examination of the three models leads to the conclusion that length of marriage subsumes the effects of all the other variables and that, once its effects are accounted for, the other variables add nothing in the way of additional explanatory power. We conclude that the rate of decline in frequency of intercourse is an inverse function of length of marriage. The fastest rate of decline is in the early years of marriage; the longer married, the slower the rate of decline.

CONCLUSION

In the only report of which we are aware which uses panel data to examine changes in the frequency of marital intercourse over time, it is demonstrated that frequency of intercourse declined more than 20% in a 4-year period in the sample of couples in which the woman was under 30 years old at the time of the initial interview. One-third of the sample reported an increase in frequency during the period. Declines were greatest for the youngest women, those married the shortest time, and those with more formal education. Husband's age and education had no independent effects.

Length of marriage is the only significant predictor of rate of change when it is included in regressions with the other variables. Those married the shortest length of time have the most rapid declines in frequency of intercourse.

The median age of the women at the beginning of the study was only 24, and the period of the study was only 4 years. We are therefore describing *short-term* changes *among young* couples. This is an age at which no known changes in sex hormones are occurring. It is difficult to attribute these observations to the biological effects of aging when the greatest declines occur in the youngest group.

In the interest of completeness, it should be mentioned that our panel was asked about frequency of intercourse with *spouses.* We do not know the frequency of intercourse with others, its proportion of the total, or its pattern over time.

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