

Relationships Among Sexual Satisfaction, Marital Quality, and Marital Instability at Midlife

Hsiu-Chen Yeh, Frederick O. Lorenz, and
K. A. S. Wickrama
Iowa State University

Rand D. Conger
University of California, Davis

Glen H. Elder, Jr.
University of North Carolina at Chapel Hill

Sexual satisfaction, marital quality, and marital instability have been studied over the life course of couples in many previous studies, but less in relation to each other. On the basis of the longitudinal data from 283 married couples, the authors used autoregressive models in this study to examine the causal sequences among these 3 constructs for husbands and wives separately. Results of cross-lagged models, for both husbands and wives, provided support for the causal sequences that proceed from sexual satisfaction to marital quality, from sexual satisfaction to marital instability, and from marital quality to marital instability. Initially higher levels of sexual satisfaction resulted in an increase in marital quality, which in turn led to a decrease in marital instability over time. Effects of sexual satisfaction on marital instability appear to have been mediated through marital quality.

Keywords: autoregressive models, marital instability, marital quality, midlife, sexual satisfaction

Many empirical studies have reported a significant positive association between sexual satisfaction and marital quality (Blumstein & Schwartz, 1983; Cupach & Comstock, 1990; Edwards & Booth, 1994; Henderson-King & Veroff, 1994; Lawrance & Byers, 1995; Oggins, Leber, & Veroff, 1993; Young, Luquis, Denny, & Young, 1998). A few longitudinal studies also reported that sexual satisfaction was negatively predictive of marital instability (Edwards & Booth, 1994; Oggins et al., 1993; Veroff, Douvan, & Hatchett, 1995; White & Keith, 1990). Karney and Bradbury's (1995) review of longitudinal studies on marriage also showed that marital satisfaction was more strongly related to marital stability (aggregate *r*s ranged from .14 to .42) than most other predictor variables. However, the causal sequences among sexual satisfaction, marital quality, and marital instability have not been carefully examined.

Because most previous research has been cross-sectional, and no more than two waves of data linking the three constructs were included in previous longitudinal studies, specific causal connections were usually based on research-

ers' decisions, rather than on empirical evidence (Christopher & Sprecher, 2000; Sprecher, 2002; Sprecher & Cate, 2004). Moreover, Booth, Johnson, and Edwards (1983) have defined marital instability as "affective and cognitive states along the related actions that are precedent to terminating a relationship" and "a situation in an intact dyad, not to ones that already have been disrupted" (p. 392). However, most researchers have commonly relied on separation and divorce statistics (i.e., consequences of instability) to represent marital instability. Furthermore, because most previous studies on sexual satisfaction have mostly focused on newlyweds and young couples (Henderson-King & Veroff, 1994; Kurdek, 1993; Oggins et al., 1993), little is known about variability in sexual satisfaction among long-married couples. To carefully examine the interrelationships among the three variables, we used five waves of panel data on sexual satisfaction, marital quality, and marital stability collected over 11 years from married husbands and wives at midlife.

Method

Sample and Procedures

Husbands and wives in the current study were those who had originally participated in the Iowa Youth and Families Project between 1989 and 1994 and continued participating into the Iowa Midlife Transitions Project in 2001 (see Conger & Elder, 1994; Lorenz, Wickrama, & Yeh, 2002, for details). Because sexual satisfaction variables were not included in the 1989 survey, only the last five waves (1990, 1991, 1992, 1994, and 2001) of data

Hsiu-Chen Yeh, Frederick O. Lorenz, and K. A. S. Wickrama, Institute for Social and Behavioral Research, Iowa State University; Rand D. Conger, Department of Human and Community Development, University of California, Davis; Glen H. Elder, Jr., Departments of Sociology and Psychology, University of North Carolina at Chapel Hill.

Correspondence concerning this article should be addressed to Hsiu-Chen Yeh, W112 Lagomarcino Hall, Iowa State University, Ames, IA 50011-3180. E-mail: hyeh@iastate.edu

were used in the present study. Missing values between 1990 and 1994 were estimated with the expectation-maximization algorithm. A total of 283 (67%) of the 424 families participating in 1990 were included in the analyses for staying through the study with completed data. Results of attrition analyses revealed that respondents included in the analyses were likely to be more sexually satisfied and to have more satisfying and stable marriages than those who were excluded from analyses. Because respondents in our sample were intact dyads, either married (98%) or living with someone in a steady relationship (2%), the definition of marital instability used in this study corresponds with the definition of Booth et al. (1983).

Measures

Sexual satisfaction. Eight items on a 5-point scale concerning positive behaviors and feelings that respondents expressed about their sexual relationship were used to assess sexual satisfaction (e.g., "My spouse and I have a wonderful sex life," "Sex isn't very important to me," and "My spouse is happy with our sex life"; Conger & Wickrama, 1993; $\alpha \geq .82$ for husbands and wives at each wave). For this and all remaining variables, responses were coded such that higher scores indicated higher levels of the constructs.

Marital quality. Two global items (Fincham & Bradbury, 1987), asking respondents how happy (on a 6-point scale) and satisfied (on a 5-point scale) they were with their marriages, were used to assess marital quality ($\alpha \geq .74$ for husbands and wives across waves).

Marital instability. The five-item short form of the Marital Instability Index (Booth et al., 1983) was used to measure marital instability (e.g., "Thought the relationship might be in trouble" and "Talked about consulting an attorney about a possible separation or divorce"). It is a behaviorally oriented assessment of the propensity to separate or get divorced in the near future of respondents in intact dyads, on a 4-point scale ($\alpha \geq .80$ for husbands and wives across waves).

Control variables. Family income adjusted by household size, years married, and neuroticism were included as controls (see Karney & Bradbury, 1995, for details). Neuroticism was measured with 12 items from the NEO Personality Inventory (Costa & McCrae, 1985) on a 5-point scale ($\alpha = .87$ for both husbands and wives).

Results

We began our analyses by fitting a series of five-wave, two-variable autoregressive (both cross-lagged and contemporary) models to the data to examine the causal directions between any two of the three constructs. After that, we examined the relationships among the three constructs for possible spurious, mediating, and reciprocal effects. Because fitting both cross-lagged and contemporary autoregressive models resulted in the same conclusion, only results of cross-lagged models are reported. Analyses were conducted for husbands and wives separately, because many previous studies have suggested that sex may have

different meanings to men and women in their relationship (Baumeister, Catanese, & Vohs, 2001; Hatfield, Sprecher, Pillemer, Greenberger, & Wesler, 1989; Patton & Waring, 1985; Rosenzweig & Dailey, 1989; Sprecher, 2002). We estimated all of the model parameters with methods of maximum likelihood using LISREL (Jöreskog & Sörbom, 1996). The completely standardized path coefficients and fit indices of each cross-lagged model for husbands and wives are presented in Figure 1.

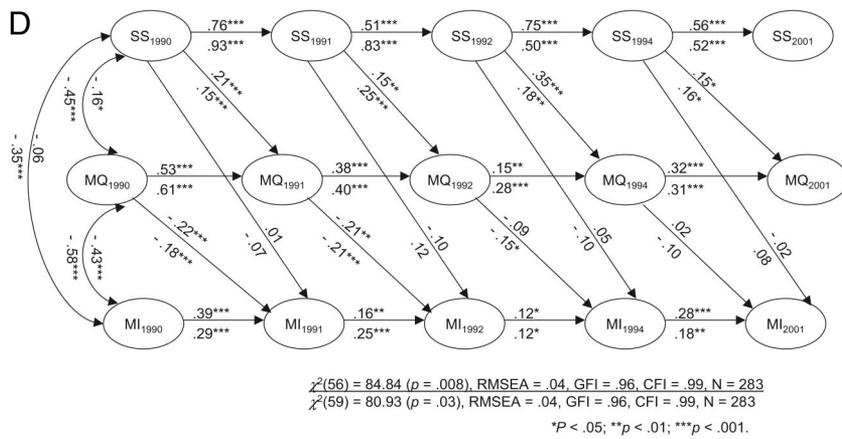
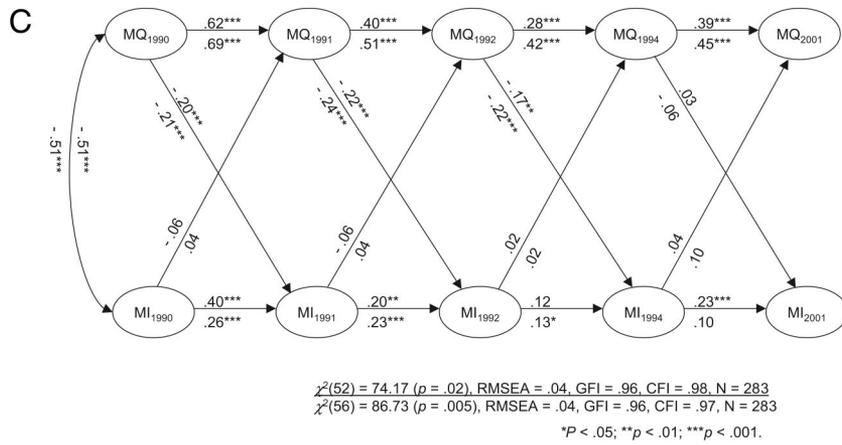
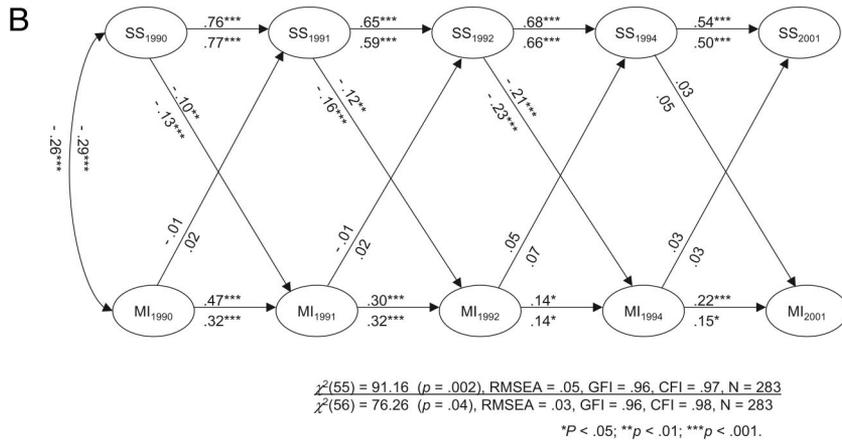
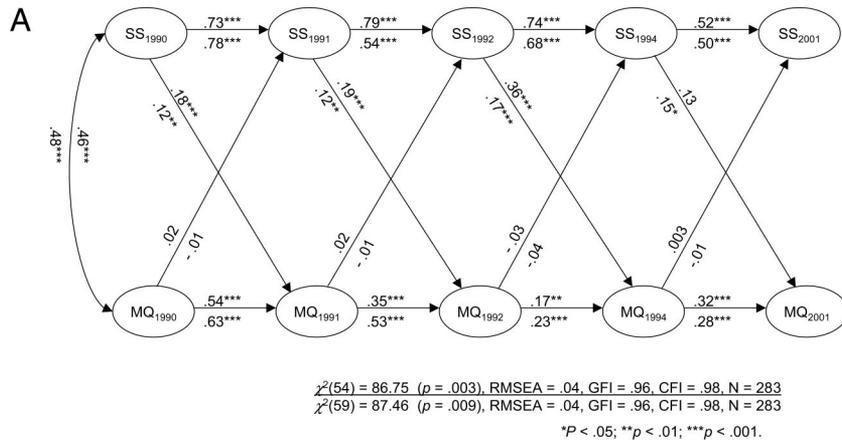
In Figure 1, for husbands and wives, all three of the constructs were relatively stable over time, and all of the model fit indices indicated a good fit with the data (see Figure 1). For both husbands and wives, results showed that higher levels of sexual satisfaction at one point in time predicted an increase in marital quality at the next point in time, but earlier marital quality did not predict greater sexual satisfaction at a later time (see Figure 1A). Results also showed that higher levels of sexual satisfaction at one point in time consistently led to a decrease in marital instability at the next point in time, but earlier marital instability did not predict later lower levels of sexual satisfaction (see Figure 1B). Further, the effects of earlier marital quality on later marital instability were much stronger than the effects of earlier marital instability on later marital quality (see Figure 1C). In summary, results provided evidence supporting the causal sequences that proceed from sexual satisfaction to marital quality, from sexual satisfaction to marital instability, and from marital quality to marital instability.

On the basis of the causal sequences indicated by the results in Figure 1, we included sexual satisfaction, marital quality, and marital instability in a single three-variable, five-wave cross-lagged model to examine the interrelationships among them. In Figure 1D, for both husbands and wives, all the paths linking earlier sexual satisfaction directly to later marital instability became nonsignificant in the presence of significant and stronger paths linking earlier sexual satisfaction to later marital quality and earlier marital quality to later marital instability. This is the evidence of the mediating effects of marital quality. Accordingly, we are led to conclude that relatively high levels of sexual satisfaction predict later decreases in marital instability indirectly through the positive effects of sexual satisfaction on marital quality. Moreover, the relationship between marital quality and marital instability is not likely to be spurious because of their associations with sexual satisfaction.

Discussion

Having longitudinal data collected from intact couples on sexual satisfaction, marital quality, and marital instability provided a unique opportunity to clarify the interrelationships among them. First, results of the three two-variable

Figure 1 (opposite). Autoregressive models with cross-lagged effects for (A) sexual satisfaction (SS) and marital quality (MQ); (B) SS and marital instability (MI); (C) MQ and MI; and (D) SS, MQ, and MI. Values above the line represent results for husbands, and values below the line represent results for wives. RMSEA = root-mean-square error of approximation; GFI = goodness of fit index; CFI = comparative fit index.



cross-lagged models indicated that earlier sexual satisfaction was predictive of changes in both marital quality and marital instability, and earlier marital quality was predictive of changes in marital instability. This was evident even after we controlled for the competing effects of social, economic, and personality variables. These results are consistent with social exchange and behavioral theories, which argue that sexual satisfaction serves as rewards as well as positive interactive experiences to make important contributions to couples' positive evaluations on marriages (see Karney & Bradbury, 1995; Sprecher & Cate, 2004, for details). Second, there is evidence showing the mediating effects of marital quality. Those who were satisfied with their sexual relations tended to be satisfied and happy with their marriages, and better marital quality, in turn, helped reduce marital instability. In contrast, little evidence suggested that marital stability affects changes in marital quality or that marital quality affects changes in sexual satisfaction. Third, the causal sequences among the three constructs and the mediating effects of marital quality hold for both husbands' and wives' models. It suggests that the effects of sex on marital relationships are essential, and the causal sequence whereby sexual satisfaction influences marital relationships is similar for both men and women, even though sex may have different meanings to men and women in their relationship.

The generalizability of the results from this study may be limited for several reasons. First, the respondents were rural White couples at midlife (age in 40s and 50s) who had been married for an average of 30 years. This was a group from which one expects high stability, and the distribution of marital instability in the present study was right-skewed. Second, those who were less satisfied with their sexual life and marriages tended to drop out of the study, and thus our sample underrepresented couples who were initially located in the lower end of the sexual satisfaction and marital quality distributions. As a result, our estimated coefficients may have represented a lower bound in the strength of the relationships. Third, although the measure of sexual satisfaction used in this study has strong internal consistency and good face validity (correlations between sexual satisfaction and marital interaction activities, marital closeness, and marital commitment that were not used in the model testing ranged from .31 to .48; all $ps < .001$), it has not been correlated with other types of information pertaining to couples' sexual satisfaction, such as compatibility of couples' attitudes and frequency of sexual orgasm.

A positive side of our findings is that there is substantial variability and strong connection among sexual satisfaction, marital quality, and marital instability with long-married couples—those who are often presumed to have, and in effect had, more stable marriages than those couples who dropped out of our study. We suspect that the relationships reported in the present study would have been even stronger if more lower-end cases had been included in the sample. The strength of these findings should spur more detailed and careful research of newlyweds, ethnic groups with higher divorce rates, and couples with younger children, where we could expect to see even greater variability.

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