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RELATIONSHIP STATUS, HEALTH, AND HEALTH BEHAVIOR: AN EXAMINATION OF COHABITERS AND COMMUTERS

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ABSTRACT: *A large amount of literature on relationship status, health, and health behavior indicates that marriage conveys health benefits. This literature, however, devotes relatively little attention to two theoretically interesting groups: unmarried cohabiters and married people who do not live with their spouse ("commuters"). The author hypothesizes that the health and health behaviors of these two groups will be intermediate between those of married people and unattached single individuals. Selective support is found for the hypothesis that the health behaviors of commuters are intermediate between those of married people and single people, but no support is found for the hypothesis that the health status of commuters is intermediate between that of married people and single people. Contrary to expectation, cohabiting persons tend to have poorer health status and health behavior than both their married and single counterparts. Also, while much previous research indicates that the health benefits of marriage are greater for men than women, the author finds that lacking a live-in partner (i.e., commuting or being single) appears to be more detrimental for women than men.*

Keywords: cohabitation, commuter marriage, health, health status, marital status, relationship status

A large body of research on relationship status, health, and health behavior indicates that marriage tends to be beneficial to health. That is, compared to the non-married, married people are less likely to engage in unhealthy behaviors, are healthier, and tend to live longer. To gain a better understanding of the health benefits of marriage, this article asks two related questions. To obtain the health benefits of marriage, is it necessary for the married couple to live together? And does cohabitation of unmarried persons confer some of the health benefits of marriage?

In this study, I focus on four groups: "married persons," "commuters," "single persons," and "cohabiters." The term "married persons" refers to those who are married and living with their spouse. "Commuters" are married persons who do not live with their spouse. "Single persons" are unmarried persons who are not

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cohabiting. "Cohabitors" are unmarried persons who are cohabiting. Thus, these are four mutually exclusive, exhaustive categories of relationship status.

There is voluminous literature on relationship status, health, and health behavior. Within this literature, there has been increasing attention to cohabitation, but virtually no examination of commuters. To the extent that the literature has addressed the health of cohabiters, the focus has been primarily on mental health rather than physical health.

Although at any given time the percent of persons who are commuters or cohabiters is relatively small—about 1.1 percent and 6.1 percent, respectively—these groups are of theoretical interest because they shed light on the putative health benefits of marriage.¹ For reasons discussed below, commuters and cohabiters may share some—but not all—of the health benefits of marriage. Before discussing why health benefits might—or might not—extend to these two groups, I discuss the research that indicates why there are health benefits of marriage.

HEALTH BENEFITS OF MARRIAGE

A large amount of research, using a variety of measures, such as self-reported health, acute conditions, chronic conditions, and days of disability, suggests that, overall, the married are healthier than the unmarried (Dupre and Meadows 2007; Ross, Mirowsky, and Goldstein 1990). A recent paper found that the self-rated health of married people has been consistently better than that of the unmarried over the long time period 1972–2003 (Liu and Umberson 2008). While a poor quality marriage can be detrimental to health (Umberson, Williams, Powers, Liu, and Needham 2006), married people are generally healthier than unmarried people.

Some researchers have been quite explicit in stating that there are gender differences in the health advantages of marriage and that the health benefits of marriage are greater for men than for women (Kiecolt-Glaser and Newton 2001; Ross et al. 1990). Some literature suggests that marital status is more important to psychological well-being for men than for women but that marital quality is more important to well-being for women than for men (Williams 2003). Other researchers, while openly conceding that the idea that marriage benefits men more than women has long been widely accepted within sociology, are nonetheless highly skeptical that there are, in fact, such gender differences in the effect of marriage (Liu and Umberson 2008; Simon 2002; Williams 2003).

Why do married people enjoy better health than unmarried people? The literature suggests at least three reasons for marriage to enhance health. I will call these social control and regulation, social support, and a sense of meaning and obligation.

Umberson (1987; 1992) argues that social control of health behavior is one important mechanism helping to account for the fact that, compared to unmarried people, the married tend to have better health and longer life. Social control was measured by asking respondents, "How often does anyone tell you or remind you to do anything to protect your health?" Umberson (1992) presents evidence that married men do, in fact, experience more social control concerning their health behavior than do never-married, divorced, and widowed men; in a large majority of cases (80 percent), the social control agent for married men is their wife.

However, for women, the likelihood of experiencing social control attempts does not vary by relationship status. For women, the most common agent of social control is their husband, but women are more likely than men to report social control attempts by a parent or a child—usually a mother or daughter. Umberson also finds that, among the married (although not among the unmarried), social control does have selective beneficial effects on health behavior of both men and women. Based in part on Umberson's research, Waite (1995:488) concludes that "marriage provides individuals—especially men—with someone who monitors their health and health-related behaviors and encourages self-regulation." Spouses have both selfish and altruistic reasons for wanting their husband or wife to take care of themselves and to be healthy, and spouses can monitor how much their husband or wife is eating, drinking, smoking, exercising, and so forth.

In addition to the effects of social control and regulation, researchers have argued that spouses typically provide social support that may help their husband or wife deal with stressful situations and that such social support enhances health (Bloom 1990; Ross et al. 1990). Unmarried persons may not have the same social support; when under stress, they may be more likely to engage in unhealthy behaviors.

Finally, although unmarried persons can have full and meaningful lives and some married persons are profoundly unhappy with their marriages, some argue that marriage may give individuals not only a greater sense of meaning in their lives but also an enhanced sense of obligation to others. A further consequence for married people may be to inhibit risky behavior and encourage healthy behaviors (Waite 1995).

Ross et al. (1990:1063) warn that "the effects of marriage on a healthy lifestyle are generally positive but not completely consistent. A few healthy behaviors are not increased by marriage. Married people are more likely to be overweight, and they are less likely to engage in physical activity and exercise than the nonmarried."

Although mortality is not a focus of this article, the gender difference in the health benefits of marriage apparently extends to mortality (Rogers, Hummer, and Nam 2000; Ross et al. 1990). Also, Kiecolt-Glaser and Newton (2001:472) argue that "gender differences in social control of health-related behavior appear to be one operative factor in this mortality differential, because women are more likely than men to attempt to control others' health; thus, when marriage promotes better health habits, these effects are relatively larger for men than women."

COHABITATION AND COMMUTING

Among marital relationships, relationship quality has been shown to have important effects on health (Umberson et al. 2006). Relationship quality among cohabiters tends to differ from that found among the married. In the large literature on cohabitation, both mental health and the quality of relationships among cohabiters have frequently been studied. However, physical health is typically not a focus of the literature on cohabitation. In light of the differences in relationship quality between cohabiters and married persons, the lack of research on differences between cohabiters and married persons in terms of physical health leaves an important gap in our knowledge.

Those who cohabit may have a different set of expectations for a wide range of activities, circumstances, and social relations, compared to those who enter marital unions (Clarkberg, Stolzenberg, and Waite 1995). Some of these differences are outlined in a review of research on cohabitation by Seltzer (2000). Comparing cohabiters to married persons, Seltzer finds that cohabiters are less committed to their relationship, view their relationship as less secure and more likely to dissolve, and in general, define their relationship as being less central to their lives. While positive aspects of relationships (e.g., happiness and time spent interacting) tend to decline over time for both married persons and for cohabiters (Brown 2003), cohabiters report lower levels of relationship satisfaction, equity, commitment, and stability than the married (Marcussen 2005:248). Cohabiting unions, on average, last less than two years (Brown 2005). A unique feature of cohabitation, as opposed to marriage, is that, for cohabiters, relationship stability increases markedly and relationship satisfaction declines sharply with the passage of time (Brown 2003). While these generalizations may not apply to long-term cohabiters (Willets 2006) or to cohabiters in other cultural contexts (Hansen, Moum, and Shapiro 2007), the weight of evidence suggests that they do apply to most cohabiters in the United States.

While there has been little investigation of the relationships between cohabitation and physical health or health behavior, several researchers have examined the relationship between cohabitation and mental health. Cohabiters tend to report more depression than do married persons (Brown 2000; Horwitz and White 1998; Lamb, Lee, and DeMaris 2003; Marcussen 2005). Some studies also find that cohabiters tend to engage in binge drinking more often than do married persons (Marcussen 2005) or are more likely to have alcohol problems (i.e., experience negative consequences as a result of drinking) than are married persons (Horwitz and White 1998).

While the literature on cohabitation is large, that on commuter marriage is small. Two books titled *Commuter Marriage* were published in the mid-1980s (Gerstel and Gross 1984; Winfield 1985). These books focused on the nature of commuter marriage, the relationships between the commuting spouses, and their relationships with friends and kin. Neither book examined health or health behavior. Nor have there been other, more recent books on commuter marriage. One article explored the socioeconomic factors related to the rise of commuter marriage (Forsyth and Gramling 1998) but did not explore the health or health behavior of those in a commuter marriage. In sum, the literature on the health and health behavior of those in commuter marriage is basically nonexistent.

HYPOTHESES

I propose four hypotheses. After presenting the hypotheses, I explain my rationale for each hypothesis:

Hypothesis 1: Commuters will lose some of the health benefits of marriage. However, married people sometimes have poorer health behavior than singles (weight and exercise); in that case, commuters will have better health

behavior than married persons. In general, commuters will be intermediate between married and single persons in terms of health and health behavior.

Hypothesis 2: Cohabiters will gain some of the health benefits of marriage, thereby having better health or health behavior than singles. However, in cases where married people have poorer health behavior than singles, cohabiters will also have poorer health behavior than single people. In general, cohabiters will be intermediate between married and single persons in terms of health and health behavior.

Hypothesis 3: In most respects, single people will have poorer health and health behaviors than married people. However, in some respects (weight and exercise), single people will have better health behavior than married people.

Hypothesis 4: The presence of a partner is more beneficial for men than for women. Conversely, the absence of a partner is more detrimental for men than for women. When comparing two relationship statuses that differ in terms of presence or absence of a partner, I expect to find a larger effect for men than for women.

What is the rationale for these hypotheses? Three arguments were proposed to explain why marriage has a health benefit. All three arguments contribute to Hypotheses 1 and 2. Hypothesis 3 has been widely supported by prior research; if it is not confirmed, it suggests there may be problems with the data or the analysis. Hypothesis 4 derives from past research that has found gender differences in the health benefit of marriage, in which men are found to benefit from marriage more than women do.

Considering the social control argument—that spouses can monitor each other’s behavior, encouraging healthy behavior while discouraging unhealthy behavior—I would anticipate that this effect would apply partially, but not fully, to commuters and cohabiters. While commuting spouses care about each other’s welfare, they are less able to monitor each other’s behavior because they live in separate households much of the time. Also, commuting itself may take time away from some healthy behaviors (e.g., exercise). While cohabiting partners presumably care about their partner’s health and welfare, the level of commitment is less among cohabiters than among marital partners (Clarkberg et al. 1995; Marcussen 2005). Given their different commitments, the ability to influence health behaviors is arguably less among cohabiters than among marital partners. Hence, the health behaviors and health of commuters and cohabiters are likely to be less favorable than those of married persons. At the same time, even an absent spouse or a present cohabiting partner may well have a salutary effect, resulting in better health behaviors and health than those of single persons. In short, commuters lose some of the health benefits of marriage, while cohabiters gain some of the benefits.

Similar considerations apply to the argument that spouses may provide social support that helps people deal with stressful situations (Holt-Lunstad, Birmingham, and Jones 2008). One form of support more readily available to those with a live-in spouse or cohabiting partner is simply that, if one is upset, the spouse or partner can listen to the upset spouse describe what upsets him or her. One who is upset but who does not have a live-in spouse or partner may be more likely to self-medicate

by using, say, nicotine or alcohol (Step toe, Wardle, Pollard, Canaan, and Davies 1996). While contemporary commuting spouses can stay in touch by telephone or e-mail, such electronic communication may not be quite as satisfying as face-to-face communication. While absent spouses can clearly provide emotional support, they certainly are not available to provide a loving hug. Nor are they available to provide more material forms of support. For example, among commuting couples with children, one spouse will have household responsibilities that are similar to those of a single parent. Also, while cohabiting partners typically provide emotional support to each other, they may not provide as much emotional support as marital partners would; this would be consistent with the nature of cohabiting relationships. For example, if one partner is dealing with a seriously ill or dying parent, the cohabiting partner may not be quite as sympathetic to this issue as a spouse would be. Thus, I anticipate that commuting spouses and cohabiting partners will, on average, provide less social support than live-in spouses; less social support may lead to more psychological distress, and ultimately to poorer health behavior and poorer physical health. At the same time, while single persons may have confidants who can help them deal with problems, single persons may not have the same "ready" source of support typically available to commuting spouses and to cohabiting individuals (Ostberg and Lennartsson 2007). Hence, single persons are hypothesized to be more likely to engage in detrimental health behaviors, leading to poorer health.

The third argument about why marriage confers a health benefit is that marriage may provide individuals with a greater sense of meaning in their lives and a stronger sense of obligation to others. While I see no reason that commuting spouses would differ from live-in spouses in this regard, cohabiting partners may be somewhat less crucial in defining the purpose of each other's lives and have less sense of mutual obligation than married partners (Seltzer 2000). In the context of obligation, for example, one may be less likely to think "I am going to give up cigarettes so I don't die and leave my girlfriend/boyfriend alone" than to think "I am going to give up cigarettes so I don't die and leave my spouse alone."

In her classic formulation of "his" and "her" marriage, Bernard (1972) argued that marriage is beneficial for men but detrimental for women. Subsequent research produced a broad consensus that marriage benefits men more than women (Kiecolt-Glaser and Newton 2001; Ross et al. 1990). Even recent research that challenges the latter formulation (Liu and Umberson 2008; Simon 2002; Williams 2003) nonetheless regards it as the conventional wisdom. The consensus that marriage benefits men more than women leads me to Hypothesis 4. I extend the consensus by hypothesizing that having a partner (even if not married) is more beneficial for men than for women and that not having a live-in partner (even if married) is more detrimental to men than to women. However, inasmuch as some researchers (Liu and Umberson 2008; Simon 2002; Williams 2003) have found that the effects of relationship status are similar for men and women, the question of whether having a partner is more beneficial for men than for women across an array of health outcomes and health behaviors remains an empirical question.

If Hypothesis 1 is supported, this will suggest that it is necessary for married couples to live together to reap the full health benefits of marriage. If Hypothesis

2 is supported, this will suggest that cohabitation of unmarried persons provides some of the health benefits of marriage. If Hypothesis 3 is not supported, this will raise serious questions about my data or method. The analyses pertaining to Hypothesis 4 will clarify when the presence of a partner is more beneficial for men than for women.

METHODS

Data

The data utilized in the analyses derive from the National Health Interview Survey (NHIS), an annual cross-sectional survey of the non-institutionalized population in the United States. The NHIS uses a multistage cluster design to select a nationally representative sample of households (National Center for Health Statistics [NCHS] 2006; 2007; 2008). The NHIS obtains some information about each member of the sample households, as well as more detailed information about one "sample adult" from each sample household. This article relies on data from the "sample adult" portion of the 2005, 2006, and 2007 waves of the NHIS. I have a total of 78,644 cases (unweighted), of which 35,746 are married, 37,753 are single, 3,877 are cohabiters, and 1,268 are commuters.

The data set contains a weight variable that provides a post-stratification adjustment based on age, race/ethnicity, and sex, using the Census population as the control. The weight variable is used in the analysis.

Variables

Relationship status is determined by two questions. The sample adult is asked, "Are you now married, widowed, divorced, separated, never married, or living with a partner?" If married, there is a follow-up question: "Is your spouse living in the household?" The latter question allows us to identify commuting spouses.

This study uses a variety of indicators of health and health behavior that may be influenced by relationship status and the presence of a partner. It is certainly possible that not all of these indicators will be affected by relationship status and presence of a partner, but examining this broad array of indicators will give a sense of the range of variables affected.

Indicators of health status are self-reported health, days in bed due to illness or injury, and a measure of psychological distress. Indicators of health behavior are smoking behavior, binge drinking, the amount of exercise obtained, sleep pattern, and Body Mass Index (BMI). These are detailed below.

Self-reported health is viewed as an important indicator of health and has been documented to be an important predictor of subsequent mortality (Benjamins, Hummer, Eberstein, and Nam 2004; Idler and Benyamini 1997). In the NHIS, the self-reported health of sample adults is categorized as excellent, very good, good, fair, or poor. The responses were recoded so that poor = 1 and excellent = 5. Relatively few sample adults rate their health as poor (3.2 percent). Therefore, I combined the "poor" and "fair" categories.

Each sample adult was asked, "During the past 12 months, that is since (12-month ref. date), about how many days did illness or injury keep you in bed more than half of the day? (Include days while an overnight patient in a hospital)." This measure is highly skewed ($M = 4.6$, $SD = 26.0$, skewness = 10.4), so I analyzed the natural log of the number of bed days ($M = .57$, $SD = 1.00$, skewness = 2.3).

Psychological distress is a third measure of health status, in this case mental health. This is an index based on six items, each referring to the past 30 days. Respondents were asked how often they felt so sad that nothing could cheer [them] up, nervous, restless or fidgety, hopeless, that everything was an effort, and worthless. The items were recoded so that 1 = none of the time, 2 = a little of the time, 3 = some of the time, 4 = most of the time, and 5 = all of the time. The scores on the items were summed and the sum was divided by the number of items ($N = 6$), so that the scale ranges from 1 to 5. Cronbach's alpha is .88. The development and evaluation of the NHIS psychological distress measure is described in Kessler, Andrews, Hiripi, Colpe, Mroczek, Normand, Walters, and Zaslavsky (2002).

As noted above, I use a variety of measures of health behavior. As is well known, smoking is one of the major causes of preventable death. I use a dichotomized measure of smoking behavior (none versus some) based on the question, "Do you now smoke cigarettes every day, some days, or not at all?"

Drinking alcoholic beverages can be detrimental to health, especially drinking large amounts (Rogers et al. 2000:261), sometimes called "binge drinking." I use a dichotomous measure that indicates whether the respondent ever engaged in binge drinking in the past year. Adults who had at least twelve drinks in their lifetime were asked, "In the past year, how often did you drink any type of alcoholic beverage?" Those who reported drinking in the past year were asked, "In the past year, on how many days did you have five or more drinks of any alcoholic beverage?" Anyone who had five or more drinks in one day at least once was coded as having engaged in binge drinking. Those who, in the past year, never had five drinks in one day were coded as not binge drinking (including those who did not drink at all in the past year).

Exercise is important for health (Rogers et al. 2000:271–3). I used two measures of exercise. Sample adults were asked, "How often do you do vigorous activities for at least 10 minutes that cause heavy sweating or large increases in breathing or heart rate?" and "How often do you do light or moderate activities for at least 10 minutes that cause only light sweating or a slight to moderate increase in breathing or heart rate?" Responses to both questions are coded in terms of the number of times per week.

Sleep pattern is also important for health. Duration of sleep is related to hypertension, obesity, and mortality, among others (Gallicchio and Kalesan 2009; Gangwisch, Malaspina, Boden-Albala, and Heymsfield 2004; Gottlieb, Redline, Nieto, Baldwin, Newman, Resnick, and Punjabi 2006). Research indicates that those who usually get less than 7 hours or more than 8 hours of sleep are at greater risk of these and other adverse outcomes (Gallicchio and Kalesan 2009; Krueger and Friedman 2009). Respondents were asked, "On average, how many hours of sleep do you get in a 24-hour period?" Only a whole number of hours was accepted. The responses were dichotomized to 1 = 7 or 8 hours of sleep, 0 = less than 7 or more than 8 hours of sleep.

There is increasing recognition that obesity is a major public health hazard (U.S. Department of Health and Human Services 2001). Information on height and weight was recoded into BMI. Using standard conventions, I recoded BMI to create four dummy variables: underweight (BMI less than 18.5), healthy weight (BMI at least 18.5 but less than 25.0), overweight (BMI at least 25.0, but less than 30.0), and obese (BMI at least 30.0).² However, I exclude the “underweight” category from the analysis of BMI because it is not clear whether being “underweight” is beneficial for health or detrimental.³ Only 2.0 percent of sample adults are underweight, so the decision to exclude this category does not exclude many cases. (These cases are excluded only from the analysis of BMI.)

I use several control variables that are related to health and health behaviors. In addition to gender, I control for age. Rather than assume a linear relationship between age and health and health behaviors, I use dummy variables for age groups (18–24, 5-year age groups from 25–29 to 80–84, and 85 or older). I also control for race/ethnicity, using four groups (non-Hispanic whites, non-Hispanic blacks, Hispanics, and other). Finally, I control for socioeconomic status. In studies of health, socioeconomic status is usually indexed using either education or income, or both. It is not entirely clear whether education or income is a better measure of socioeconomic status for the purpose of analyzing health (Mirowsky and Ross 2003; Schnittker 2004). I use both. For education, I use several categories of education: less than high school, some high school, high school graduate, some college, college graduate, Master’s degree recipient, and professional or doctoral degree recipient.

In 2005 and 2006, the NHIS used eleven income categories. In 2007, twenty-one categories were used, but it was possible to recode the 2007 income categories to correspond exactly with the ones used previously. The highest income category was \$75,000 and higher. With this coding, the family income variable was not highly skewed, and it was used without further adjustment.⁴

Since many respondents did not report their family income, the NCHS used multiple-imputation methodology to provide five estimates of family income for each respondent (Schenker, Raghunathan, Chiu, Makuc, Zhang, and Cohen 2008). For the analyses reported in this article, I replicate each analysis five times—once for each estimate of income—and combine the estimates for coefficients in the manner described by the NCHS. The five imputed values of income are, of course, highly correlated. The mean correlation for the ten pairs of imputed income values is .94.

It is important to control for these variables not only because they are likely related to health and health behaviors but also because they are related to relationship status. That is, married, commuting, single, and cohabiting people differ in terms of age, race/ethnicity, education, and income. If I fail to control for these variables, the coefficients indicating the relationship between relationship status and health or health behaviors could be influenced by compositional differences.

Analysis Plan

The analysis plan is as follows. In Model 1, I regress each dependent variable on three dummy variables for relationship status (Single, Commuter, and Cohabiter), as well as the control variables; Married is the comparison group. Model

2 has the same control variables as Model 1 and also tests for interactions between gender and relationship status, with 1 = Male and 0 = Female. Model 3 reverses the coding of gender and the gender interaction terms in order to test some comparisons that cannot be tested in Model 2. Several variables can reasonably be considered as continuous variables (natural log of bed days, distress, and minutes of vigorous and moderate activities); these are analyzed using OLS regression. Some variables are dichotomous (smoker, binge drinking, and sleep pattern); these are analyzed using logistic regression. Two variables have only a small number of ordinal categories (self-reported health and BMI); these are analyzed using ordered logistic regression.

The NHIS employs a complex sample design. I used Stata SE 10 to obtain the appropriate standard errors, taking into account stratification and clustering.

RESULTS

Table 1 reports summary measures (means, standard deviations, medians, and percentages) for the control and dependent variables by relationship status. The distribution across relationship statuses (not shown in Table 1) is as follows: married, 55.3 percent; single, 37.1 percent; cohabiters, 6.1 percent; and commuters, 1.1 percent.

People in different relationship statuses vary in terms of age, race/ethnicity, educational attainment, income, and even sex. Married people tend to be the oldest and cohabiters the youngest. Commuters are much more likely than people in the other three relationship statuses to be either Hispanic or of "other" race/ethnicity (i.e., not non-Hispanic white or non-Hispanic black); commuters, cohabiters, and singles are more likely than married people to be non-Hispanic black. As academics, many of us are familiar with academic commuting couples, but nationally, commuters tend to have less education than those in the other three relationship statuses. And commuters tend to have relatively low income.⁵

Health status is remarkably similar across the four relationship statuses. The biggest difference is that singles and cohabiters report somewhat more bed days. There are bigger differences in terms of health behaviors. Cohabiters are more likely to smoke and engage in binge drinking. Singles and cohabiters are more likely to be at a healthy weight but less likely to obtain an optimal amount of sleep. The differences in terms of exercise are modest.

The strategy for discussing the relationship among variables is as follows. First, I discuss the health status variables, then the health behavior variables. Within each set of variables, I first compare commuters to married persons, then compare cohabiters to married and single people, and finally compare singles to married people. If the relevant sex interaction term is not significant, I rely on Model 1; otherwise, I rely on Models 2 and 3.

Relationship Status and Health Status

Hypothesis 1 suggested that commuters will lose some of the health benefits of marriage. I find no support for this hypothesis. There is no difference between commuters and their married counterparts in terms of the number of bed days and

TABLE 1
Summary of Control and Dependent Variables by Relationship Status

| | <i>Married</i> | <i>Commuter</i> | <i>Single</i> | <i>Cohabiter</i> | <i>Total</i> |
|------------------------------------|----------------|-----------------|---------------|------------------|--------------|
| <i>Independent Variables</i> | | | | | |
| Median age (years) | 47 | 44 | 40 | 32 | 44 |
| Race/ethnicity (percents) | | | | | |
| Non-Hispanic white | 75 | 43 | 65 | 67 | 70 |
| Non-Hispanic black | 7 | 15 | 18 | 13 | 12 |
| Hispanic | 13 | 31 | 13 | 16 | 13 |
| Other | 5 | 12 | 5 | 4 | 5 |
| Education | | | | | |
| Some or less than high school | 14 | 28 | 19 | 19 | 16 |
| High school graduate | 28 | 28 | 29 | 33 | 29 |
| Some college | 26 | 20 | 32 | 28 | 28 |
| College graduate | 19 | 14 | 17 | 15 | 17 |
| Advanced degree | 11 | 8 | 9 | 5 | 9 |
| Median income | \$62,765 | \$30,200 | \$31,544 | \$44,120 | \$48,340 |
| <i>Dependent Variables</i> | | | | | |
| Self-reported health ^a | 2.8 | 2.7 | 2.7 | 2.8 | 2.8 |
| <i>M (SD)</i> | (1.0) | (1.0) | (1.0) | (1.0) | (1.0) |
| Ln(bed days per year) | .53 | .54 | .63 | .64 | .57 |
| <i>M (SD)</i> | (.96) | (1.06) | (1.05) | (1.01) | (1.0) |
| Psychological distress | 1.3 | 1.4 | 1.4 | 1.4 | 1.4 |
| <i>M (SD)</i> | (.56) | (.69) | (.68) | (.66) | (.62) |
| Smoker? (% yes) | 16 | 22 | 24 | 38 | 20 |
| Ever binge drink? (% yes) | 17 | 19 | 23 | 35 | 20 |
| Vigorous exercise (times per week) | 1.4 | 1.2 | 1.5 | 1.5 | 1.4 |
| <i>M (SD)</i> | (2.8) | (3.0) | (2.9) | (3.1) | (2.9) |
| Moderate exercise (times per week) | 2.4 | 2.0 | 2.3 | 2.5 | 2.4 |
| <i>M (SD)</i> | (3.6) | (3.5) | (3.6) | (3.7) | (3.6) |
| Sleep (% 7 or 8 hours) | 66 | 65 | 60 | 61 | 63 |
| Body Mass Index (%) | | | | | |
| Underweight | 1 | 1 | 3 | 2 | 2 |
| Healthy weight | 34 | 37 | 41 | 39 | 37 |
| Overweight | 38 | 37 | 32 | 33 | 35 |
| Obese | 27 | 24 | 24 | 26 | 26 |

^a1 = poor or fair; 4 = excellent.

distress. In fact, contrary to the hypothesis, commuting men (but not cohabiting women) have better self-reported health than their married counterparts (Table 2, .29, $p < .01$ for men; .04, *ns* for women).

Hypothesis 2 suggested that cohabiters would gain some of the health benefits of marriage, so that they would be intermediate between married and single people in terms of health status. Cohabitors do tend to have poorer health than comparable married people. Specifically, cohabiting men and women have poorer self-reported health ($-.26, p < .01$) and more distress (.10, $p < .01$) than their married counterparts, and cohabiting women have more bed days than corresponding married women

TABLE 2
Relationship Status and Health Status

| | <i>Self-Reported Health^b</i> | <i>Ln(Bed Days)^c</i> | <i>Psychological Distress^c</i> |
|----------------------------|---|---------------------------------|---|
| <i>Model 1^a</i> | | | |
| Commuter | .17* | -.01 | .03 |
| Single | .00# | .05*** | .07*** |
| Cohabiter | -.26*** | .10*** | .10*** |
| Male | .03 | -.17** | -.09** |
| Cut 1 | -2.13** | | |
| Cut 2 | -0.43** | | |
| Cut 3 | 1.11** | | |
| <i>Model 2^a</i> | | | |
| Commuter | .04 | .06 | .06 |
| Single | .01# | .06*** | .07*** |
| Cohabiter | -.36*** | .17*** | .12*** |
| Male | .02 | -.15** | -.09** |
| Commuter × Male | .25 | -.11 | -.05 |
| Single × Male | -.01# | -.03# | .00 |
| Cohabiter × Male | .20*** | -.13*** | -.04 |
| Cut 1 | -2.14** | | |
| Cut 2 | -0.43** | | |
| Cut 3 | 1.10** | | |
| <i>Model 3^a</i> | | | |
| Commuter | .29** | -.06 | .01 |
| Single | -.01# | .03* | .07** |
| Cohabiter | -.16*** | .04 | .08** |
| Female | -.02 | .15** | .09** |
| Commuter × Female | -.25 | .11 | .05 |
| Single × Female | .01# | .03# | .00 |
| Cohabiter × Female | -.20*** | .13*** | .04 |
| Cut 1 | -2.16** | | |
| Cut 2 | -0.45** | | |
| Cut 3 | 1.08** | | |
| <i>N cases</i> | 77,777 | 76,537 | 76,593 |

Note: Married is the reference category.

^aControls: Gender, age (thirteen dummy variables), race-ethnicity (three dummy variables), education (six dummy variables), income, and year (two dummy variables).

^bUnstandardized coefficient from ordered logistic regression.

^cUnstandardized coefficient from linear regression (OLS).

* $p < .05$; ** $p < .01$ (two-tailed test).

For Wald tests comparing Cohabiting versus Single: # $p < .05$; ** $p < .01$ (two-tailed test).

(.17, $p < .01$). However, cohabiting men and women also tend to have poorer health than comparable single people. This is determined by using adjusted Wald tests, which are reported using pound signs (#) in Table 2. The adjusted Wald tests indicate that cohabiting women have more bed days and more distress than their single counterparts and both cohabiting men and women have poorer self-reported health compared to their single counterparts. In short, this is inconsistent with the

idea that cohabiters gain some of the health benefits of marriage. Rather, cohabiters have poorer health than their married and single counterparts.

Hypothesis 3 suggested that single people have poorer health than married people. Although there are no significant differences in terms of self-reported health, single men and women report more bed days and more distress than do their married counterparts. Thus, Hypothesis 3 is supported by the data.

Hypothesis 4 suggested that the presence of a partner is more beneficial for men than for women and that the absence of a partner is more detrimental for men than for women. The analysis of health status provides no support for this. (1) Comparing single people (i.e., no partner) with married people (i.e., living with spouse), no sex interaction terms were significant, so this does not support Hypothesis 4. (2) Comparing commuters (i.e., spouse absent) to married persons (i.e., spouse present), commuting men actually have better self-reported health, compared to their married counterparts. This contradicts Hypothesis 4 in a surprising way. It is difficult to provide a convincing reason why commuting would improve the health of men. It seems more likely that this pattern is a result of a selection effect. That is, healthier men may be more willing to live separately from their wife; less healthy men may be less willing to do so (or the wives may be less willing to allow them to do so).

(3) Hypothesis 4 does not make a prediction with respect to the comparison between cohabiting and married people, because both groups have a partner. However, given the already-discussed differences in the quality of the marital relationships as compared to cohabiting relationships, the sex interaction patterns are of interest. Cohabiting men and women have poorer self-reported health than do comparable married people, and this difference is significantly larger for women than for men (sex interaction effect = $-.20$, $p < .01$). Also, while cohabiting men do not differ from comparable married men in terms of the number of bed days, cohabiting women do have more bed days than comparable married women. So cohabiting men and, especially, cohabiting women have poorer health than their married counterparts. As elaborated in the next paragraph, this may be related to the more tenuous nature of a cohabiting relationship, compared to a marital relationship. Interestingly, this pattern does not extend to mental health. That is, the Sex \times Cohabiter interaction terms are not significantly related to psychological well-being.

(4) Comparing cohabiters (i.e., partner present) to singles (i.e., no partner), we find that while both cohabiting men and women have poorer self-reported health than do their single counterparts, the difference is significantly larger for women. Also, while there is no significant difference between cohabiting men and their single counterparts in terms of bed days and distress, cohabiting women do have more bed days and more distress than comparable single women. This pattern is not consistent with Hypothesis 4. The basic idea behind Hypothesis 4 is that having a partner is more beneficial for men—but beneficial for both men and women. Instead, partnered (in this case, cohabiting) men and women have poorer health status than their single counterparts, and the difference is greater for women. I would suggest that a parsimonious interpretation of the comparison between cohabiters and singles would refer to the tenuous nature of the cohabiting relationship. Such an interpretation would incorporate both this comparison between

cohabiters and singles as well as the comparison between cohabiters and married people in the previous paragraph. In other words, the relatively low levels of relationship satisfaction, commitment, and stability for cohabiters (see Seltzer 2000) may be implicated in the relatively low health status of cohabiters, compared to both their married and single counterparts.

Relationship Status and Health Behavior

As mentioned above, I have six measures of health behavior: smoking, binge drinking, vigorous and moderate exercise, sleep pattern, and BMI.

Hypothesis 1 suggests that, in terms of health behaviors, commuters will be intermediate between married persons and single persons. That is, when single people have poorer health behavior than married people, commuters will have poorer health behavior than married people; and when single people have better health behavior than married people, commuters will also have better health behavior than married people. There is selective evidence in support of Hypothesis 1 and nothing that sharply contradicts it. Compared to comparable married men, commuting males are more likely to smoke (Table 3, 1.66, $p < .01$); in fact, the likelihood that a commuting male will smoke is very similar to that for his single counterpart (1.66 vs. 1.59). Commuting females, on the other hand, are not statistically different from their married counterparts in terms of their likelihood of smoking.

In terms of binge drinking, compared to their married counterparts, commuting females are more likely to have engaged in binge drinking during the previous 12 months; in fact, the likelihood that a commuting female will have engaged in binge drinking is the same as for her single counterpart (1.77 for both). Commuting males, on the other hand, are not statistically different from their married counterparts in terms of their likelihood of binge drinking.

In terms of vigorous and moderate exercise, commuting males and females do not differ significantly from their married counterparts. Also, commuting males and females do not differ significantly from their married counterparts in terms of their sleep patterns.

The expectations for BMI are complicated. Men are more likely than women to be overweight (BMI of 25 or more). However, not only does BMI tend to vary by marital status, the association between marital status and BMI varies between men and women. Specifically, analyses of age-adjusted data show that married women are less likely to be overweight than never-married, divorced, or widowed women, while married men are *more* likely to be overweight than never-married, divorced, or widowed men (Schoenborn, Adams, and Barnes 2002). The same source indicates that married and cohabiting women are about equally likely to be overweight, while married men are more likely than cohabiting men to be overweight.

These Gender \times Marital Status interactions make it complicated to state what the hypotheses predict with respect to BMI. Therefore, I summarize the empirical pattern of BMI category by sex and relationship status, based on my own analyses, and then indicate whether this pattern is consistent with the hypothesis that commuters will be intermediate between married people and single people. From Models 2 and 3, supplemented by additional modified Wald tests not shown in the table,

TABLE 3
Relationship Status and Health Behavior

| | Smoker? ^b | Ever Binge? ^b | Vigorous Exercise ^{c,d} | Moderate Exercise ^{c,d} | Sleep Pattern ^b | Body Mass Index ^e |
|----------------------------|----------------------|--------------------------|----------------------------------|----------------------------------|----------------------------|------------------------------|
| <i>Model 1^a</i> | | | | | | |
| Commuter | 1.45** | 1.29* | .10 | -.05 | 1.08 | -.16* |
| Single | 1.57*** | 1.50*** | .18** | .02 [#] | .87** | -.09** |
| Cohabiter | 2.60*** | 1.96*** | .07 [#] | .19** | .84** | -.03 |
| Male | 1.43** | 3.01** | .34** | -.09** | .97 | .39** |
| Cut 1 | | | | | NA | .29** |
| Cut 2 | | | | | NA | 1.91** |
| <i>Model 2^a</i> | | | | | | |
| Commuter | 1.21 | 1.77** | .08 | -.17 | .97 | .18 |
| Single | 1.55*** | 1.77*** | .07* | -.09 | .86** | .16** |
| Cohabiter | 2.78*** | 2.52*** | -.01 | .09 | .82** | .11 |
| Male | 1.42** | 3.49** | .24** | -.19** | .95 | .58** |
| Commuter × Male | 1.37 | .62* | .05 | .23 | 1.23 | -.61** |
| Single × Male | 1.03 | .77** | .23** | .24** | 1.05 | -.49*** |
| Cohabiter × Male | .88 | .66** | .18 | .21 | 1.05 | -.28*** |
| Cut 1 | | | | | NA | .38** |
| Cut 2 | | | | | NA | 2.01** |
| <i>Model 3^a</i> | | | | | | |
| Commuter | 1.66** | 1.10 | .13 | .06 | 1.19 | -.42** |
| Single | 1.59*** | 1.36*** | .31** | .15** | .89** | -.33*** |
| Cohabiter | 2.45*** | 1.66*** | .16 | .29** | .86** | -.16*** |
| Female | .70** | .29** | -.24** | .19** | 1.05 | -.58** |
| Commuter × Female | .73 | 1.61* | -.05 | -.23 | .82 | .61** |
| Single × Female | .97 | 1.30** | -.23** | -.24** | .95 | .49*** |
| Cohabiter × Female | 1.13 | 1.52** | -.18 | -.21 | .95 | .28*** |
| Cut 1 | | | | | NA | -.20** |
| Cut 2 | | | | | NA | 1.42** |
| <i>N</i> of cases | 76,999 | 74,917 | 76,499 | 75,846 | 76,189 | 72,937 |

Note: Married is the reference category.

^aControls: Gender, age (thirteen dummy variables), race-ethnicity (three dummy variables), education (six dummy variables), income, year (two dummy variables).

^bOdds ratio from logistic regression.

^cUnstandardized coefficient from linear regression (OLS).

^dNumber of times per week the respondent exercised for at least 10 minutes.

^eUnstandardized coefficient from ordered logistic regression.

* $p < .05$; ** $p < .01$ (two-tailed test).

For Wald tests comparing Cohabiting versus Single: * $p < .05$; ** $p < .01$ (two-tailed test).

we can discern the following patterns. Model 3 indicates that married men tend to be in a significantly higher BMI category than their cohabiting counterparts, who in turn tend to be in a significantly higher BMI category than their commuting and single counterparts. (There is no significant difference between commuting and single men in terms of their BMI category.) Model 2 indicates that single women tend to be in a significantly higher BMI category than their married counterparts.

Model 2 also shows that cohabiting women are not significantly different from their single counterparts and that commuting women are not significantly different from either their married or single counterparts. In short, the pattern for men supports Hypothesis 1—commuting men are intermediate between their married and single counterparts—but it does not support Hypothesis 1 for women.⁶

I now compare cohabiters to married people and single people. Compared to their married counterparts, cohabiting men and women are more likely to smoke (2.60, $p < .01$). In fact, cohabiting individuals are more likely to smoke than are their single counterparts (2.60 vs. 1.57, $p < .01$). In other words, in this respect, the health behavior of cohabiters is not only worse than that of married persons, it is also worse than that of single persons.

Compared to married people, cohabiters are more likely to engage in binge drinking (1.96, $p < .01$). In fact, the difference between cohabiting women and their married counterparts is larger (2.52, $p < .01$) than the corresponding difference between cohabiting men and their married counterparts (1.66, $p < .01$); this sex interaction is significant (.66, $p < .01$). Furthermore, cohabiters are more likely to engage in binge drinking than are single people (1.96 vs. 1.50, 2.52 vs. 1.77, and 1.66 vs. 1.36; $p < .01$ for all three comparisons).

The key point of the previous two paragraphs is that the health behavior of cohabiters is worse than that of both their married and single counterparts with respect to not only smoking but also binge drinking. This is contrary to Hypothesis 2, which suggested that the health behavior of cohabiters would be intermediate between that of married individuals and that of singles.

Cohabiters are less likely than their single counterparts to engage in vigorous exercise (.07 vs. .18, $p < .05$) but more likely than their married counterparts to engage in moderate exercise (.19, $p < .01$). These findings tend to support Hypothesis 2. That is, cohabiters tend to be intermediate between their single and married counterparts.

Both cohabiters and singles are less likely than their married counterparts to get 7 or 8 hours of sleep (.84 and .87, $p < .01$ for both), but the former two groups are not significantly different in this respect. This contradicts Hypothesis 2.

In summarizing the results for BMI above, I noted that, in this respect, cohabiting men tend to be intermediate between their married and single counterparts. This supports Hypothesis 2. Cohabiting women, however, do not differ significantly from their single counterparts in terms of their BMI category. This does not support Hypothesis 2.

Next, I compare the health behavior of singles and married people. In many respects, the results support Hypothesis 3, which suggested that singles will have poorer health behaviors than married people. Compared to their married counterparts, singles are more likely to smoke (1.57, $p < .01$) and to engage in binge drinking (1.50, $p < .01$). Single men and women are more likely to binge drink than are their married counterparts; this is particularly true for women (1.77 for women, 1.36 for men; $p < .01$ for both; the sex interaction is significant at the .01 level).

The analyses of exercise are consistent with published results, thus supporting Hypothesis 3. Single men and women are significantly more likely to engage in

vigorous exercise than their married counterparts; this is particularly true when comparing single men to married men ($b = .31, p < .01$ for men; $.07, p < .05$ for women; the sex interaction is significant at the .01 level). Also, single men tend to engage in moderate exercise more than their married counterparts.

As noted above, compared to their married counterparts, single men and women are significantly less likely to get 7 or 8 hours of sleep ($.87, p < .01$). This supports Hypothesis 3.

As noted above, single men tend to be in a lower BMI category, compared to their married counterparts ($-.33, p < .01$), while single women tend to be in a higher BMI category, compared to their married counterparts ($.16, p < .01$). The sex interaction term is significant at the .01 level. This pattern is consistent with published findings. It indicates that, in this respect, single men have better health behavior than their married counterparts, but single women have poorer health behavior than their married counterparts.

Hypothesis 4 suggested that the presence of a partner is more beneficial for men than for women and that the absence of a partner is more detrimental for men than for women. The results pertaining to health behavior tends to contradict Hypothesis 4. (1) Comparing single people (i.e., no partner) with married people (i.e., living with spouse), we find that (a) while single men and women are more likely to binge drink than are married counterparts, the difference is larger for women; (b) while single men and women engage in vigorous exercise more than their married counterparts, the difference is larger for men; (c) single men—but not single women—engage in moderate exercise more than their married counterparts; and (d) single women tend to be in a higher BMI category than their married counterparts, while single men tend to be in a lower BMI category than their married counterparts. In each case, the absence of a partner is related to poorer health behavior to a greater extent for women than for men (or related to better health behavior for men).

(2) Comparing commuters (i.e., spouse absent) to married persons (i.e., spouse present), we find that (a) commuting women—but not men—are more likely to engage in binge drinking than their married counterparts and (b) commuting men—but not women—tend to be in a lower BMI category than their married counterparts. Again, the absence of a partner is related to poorer health behavior to a greater extent for women than for men.

(3) Comparing cohabiters (i.e., partner present) to singles (i.e., no partner), we find that there is no difference between cohabiting women and their single counterparts in terms of their BMI category, but single men tend to be in a lower BMI category than their cohabiting counterparts. Again, absence of a partner is related to better health behavior among men, but not among women.

(4) As mentioned above, Hypothesis 4 does not make a prediction with respect to the comparison between cohabiting and married people, because both groups have a partner. However, given the differences in the quality of marital relationships as compared to cohabiting relationships, the sex interaction patterns are of interest. The results indicate that with respect to binge drinking and BMI, cohabitation is associated with poorer health behavior among women than among men.

SUMMARY AND DISCUSSION

There is extensive literature on relationship status, health, and health behavior. In recent decades, this literature has increasingly included cohabitation as a relationship status. However, the literature on cohabitation and health focuses primarily on mental health, rather than physical health or health behavior. Furthermore, the literature on relationship status has largely neglected commuter marriage as a relationship status; the few books and articles on commuter marriage do not examine health or health behavior. In terms of understanding the link between relationship status and health, commuters and cohabiters are important groups to examine. Comparing commuters to other married people gives us a sense of whether the health benefits of marriage accrue to those who cannot live full-time with their spouse, which gives us a better sense of why relationship status is important. Comparing cohabiters to married people and to single people gives us a sense of whether simply living with a partner confers health benefits or whether marriage is key to obtaining those benefits.

There are two central hypotheses for this article. Hypothesis 1 states that, in general, commuters will be intermediate between married and single persons in terms of health and health behavior. Hypothesis 2 states that, in general, cohabiters will be intermediate between married and single persons in terms of health and health behavior.

With respect to health, there is no evidence in support of Hypothesis 1. Contrary to expectation, commuting men have better self-reported health than their married counterparts. There is, however, selective support for the idea that commuters have poorer health behavior than their married counterparts. Male commuters are more likely than their married counterparts to smoke and female commuters are more likely than their married counterparts to binge drink. In these respects, commuters have poorer health behavior than do their married counterparts. It seems plausible, though unproven, that these differences between commuters and married people may stem from the fact that the commuters are subject to less social control, regulation, and social support. In one respect, male commuters engage in healthier behavior; namely, compared to their married counterparts, they tend to have a lower BMI. In all cases where the health behaviors of commuters differ from those of their married counterparts, commuters are more similar to single people than they are to married people; that is, they are intermediate between married and single persons in terms of health behavior.

Returning to a question raised at the beginning of the article, to obtain the health benefits of marriage, is it necessary for the married couple to live together? The results on health status per se suggest that the answer is "no." At the same time, however, the results show that commuters tend to have poorer health behaviors than their married counterparts. This raises the possibility that, over time, the poorer health behaviors of commuters may eventually lead to poorer health compared to that of their married counterparts. Unfortunately, the NHIS does not provide data on how long commuters have been living in separate households. Further research is needed to clarify the issue.

Hypothesis 2 stated that cohabiters will be intermediate between married and single people in terms of health and health behavior. The evidence relative to this

hypothesis is mixed but tends to contradict the hypothesis. With respect to health status, the results consistently contradict the hypothesis. Specifically, (a) the self-reported health of cohabiters (men and women) not only is lower than that of their married counterparts but is also lower than that of their single counterparts and (b) cohabiting women report both more bed days and more distress than do their married and single counterparts. In short, cohabiters tend to have poorer health than both their married and single counterparts. With respect to health behavior, the results are mixed. Cohabiters are more likely to smoke and binge drink than their single and married counterparts and less likely to get an optimal amount of sleep compared to their married counterparts. Cohabiters are intermediate between singles and married people in two respects: Cohabiters engage in more exercise than their married counterparts but less than their single counterparts. Furthermore, cohabiting men are intermediate between their single and married counterparts in terms of BMI. A similar statement cannot be made for cohabiting women. In both of these respects, cohabiters share with their married counterparts an unhealthy behavior (i.e., less exercise than singles and, for males, higher BMI than singles). In short, in many respects, the health behavior of cohabiters is poorer than that of their single and married counterparts; when the health behavior of cohabiters is intermediate between that of their single and married counterparts, the health behavior of cohabiters is poorer than that of their single counterparts.

Returning to another question raised at the beginning of the article, does cohabitation of unmarried people confer some of the health benefits of marriage? The empirical results suggest the answer is "no." Cohabiters tend to have poorer health and poorer health behavior than comparable singles, who tend to have poorer health and poorer health behavior than their married counterparts. Cohabiters do differ systematically from singles but in a manner contrary to that expected. Thus, I find no support for the hypothesis that cohabiters share some of the health benefits of married people.

Why do cohabiters have poorer health behavior than single people? It is conceivable, though unproven, that some of the differences between cohabiters and singles may stem from preexisting differences rather than stemming from their current relationship. That is, cohabiters may not smoke more and binge drink more because they are cohabiting; instead those who previously smoked and drank more may, for whatever reason, be more likely to cohabit. Inasmuch as I controlled for age, race/ethnicity, education, and income, these variables do not account for the observed relationship. However, there may be additional variables that could account for the observed relationships. For example, perhaps cohabiters are more likely than unattached singles to be risk takers.

Hypothesis 3, supported by much prior literature, states that single people have poorer health and health behaviors than do married people. This is strongly supported by my data. The exceptions, found in previous literature, are that, compared to married people, single men tend to get more exercise and maintain healthier weight.

Hypothesis 4 states that the presence of a partner is more beneficial for men than for women and, conversely, that the absence of a partner is more detrimental for men than for women. There is little support for this hypothesis. In fact, several

patterns contradict the hypothesis. For men, commuting is associated with better self-reported health; for women, there is no significant difference between commuting women and their married counterparts. Furthermore, commuting women—but not commuting men—are more likely to engage in binge drinking than their married counterparts. Also, commuting men—but not commuting women—tend to be in a lower BMI category than their married counterparts. Among singles, three significant patterns contradict the hypothesis: (1) Singles are more likely to engage in vigorous exercise than their married counterparts, but the coefficient is larger for men than for women. (2) Single men, but not single women, are more likely to engage in moderate exercise than their married counterparts. (3) Single women tend to have a higher BMI than their married counterparts, while single men tend to have a lower BMI than their married counterparts. The only support I find for Hypothesis 4 is that commuting men—but not commuting women—are more likely to smoke than their married counterparts.

It is noteworthy that there are several significant sex interaction terms involving cohabitation. Each of these significant sex interaction terms indicates that the health status or health behavior is poorer for cohabiting women. In particular, cohabiting men and women have poorer self-reported health than do their single and married counterparts, and the difference is larger for women; cohabiting women—but not men—have more bed days than their married counterparts; cohabiting women—but not men—have more bed days and more distress than their single counterparts; cohabiting men and women are more likely to engage in binge drinking compared to their married counterparts, but the difference is larger for women; and compared to their married counterparts, cohabiting men are significantly more likely than cohabiting women to be in a lower BMI category.

The comparisons between cohabiters and their single counterparts in the previous paragraph contradict Hypothesis 4. As for the comparisons between cohabiters and their married counterparts, the literature suggests that marital status is more important to psychological well-being for men than for women but that marital quality is more important to psychological well-being for women than for men (Williams 2003). Other literature suggests that relationship quality is better for married couples than for cohabiting couples (Marcussen 2005; Seltzer 2000). Although I have no measures of relationship quality, the comparisons between cohabiters and their married counterparts in the previous paragraph may reflect differences between cohabiters and their married counterparts in terms of relationship quality. If so, this implies that relationship quality may not only be more important to psychological well-being for women than for men but that relationship quality may also be more important for women than for men with respect to physical health and health behavior.

Clearly, the empirical results contradict Hypothesis 4. The conventional wisdom, often cited in the literature, is that the health benefits of marriage are greater for men than for women. Even recent research that challenges the conventional wisdom (Liu and Umberson 2008; Williams 2003) does not suggest that the health benefits of marriage are greater for women than for men; it merely finds that the effects of marital status are similar for men and women. Several of my results, however, suggest that the absence of a partner is more detrimental for women

than for men, implying, conversely, that the presence of a partner is more beneficial for women than for men.

The contrast between this article and previous research is provocative. There are at least three possible explanations for the difference in results. First, I focus on an expanded set of outcomes, compared to previous research. Second, I focus on different relationship statuses than does prior research. Third, perhaps the pattern has changed over time. I explore each of these possibilities.

The literature that investigates gender differences in the effect of marital status on health usually does not examine health behavior. In this article, most of the empirical results that contradict Hypothesis 4 pertain to health behavior, rather than health status. For example, some comparisons between singles and their married counterparts involving exercise and BMI contradict Hypothesis 4. So one possible explanation for the difference between my findings and those of others is the broader range of variables explored here.

Second, the idea that the health benefits of marriage are greater for men than for women is based largely on a comparison of married to unmarried. The current article relies on a more fine-grained categorization of relationship status, highlighting cohabitation and commuter marriage. A couple of the significant sex interactions pertain to commuters, but several involve cohabiters. Furthermore, several of the significant sex interactions involving cohabiters pertain to their self-reported health, the number of days that illness or injury kept them in bed, binge drinking, and BMI. As noted above, the literature on cohabitation and health tends to focus on psychological well-being, rather than on physical health and health behavior. So the difference in findings may be due not only to the broader range of variables I examine but also to the relationship status categories I use.

Third, gender differences in the health benefits of marriage may have changed over time. That is, in fact, the point of Liu and Umberson's (2008) article, which examines trends in self-reported health over the period 1972 to 2003. Their analyses lead them to "challenge some long-held assumptions about gender and the benefits of marriage for health" (Liu and Umberson 2008:250).

Thus, while conclusions on this point would be premature, there is some evidence in support of each of the three proposed explanations as to why the findings tend to contradict Hypothesis 4. Future research should continue to explore the circumstances under which the absence of a partner is detrimental to women and men.

Limitations

A weakness of the article is the cross-sectional nature of the data set. There are various selectivities at work. Married people are not a random sample of previously unmarried people, commuters are not a random sample of married people, and cohabiters are not a random sample of unmarried people. I partially controlled for selection effects by controlling for age, race/ethnicity, education, and income. Clearly, commuters may differ from other married persons and cohabiters may differ from other singles in other respects as well. The issue of selection into the

status of commuter or cohabiter should be explored in future research. The best way to control for selection effects would be with a panel study. For commuters, it would be fascinating to know how long couples have been living in separate households, the distance between households, the reasons for living in separate households, and so forth; inasmuch as the data set used here focuses on health variables, these details are not available.

Although I control for ethnicity, an empirical finding is that Hispanics are greatly overrepresented among commuters. It is not clear why this is the case. Are these Hispanic commuters immigrants? Are their spouses in the United States? The possibility that the Hispanic commuters might be immigrants highlights the issue of the potential for cultural differences in the quality of relationships, health, and health behavior. This is another area for future research.

Strengths

One strength of the article is that it is based on a large, nationally representative sample of adults. Another strength is that the article utilizes multiple measures of health and health behavior, providing a view of diverse aspects of health and health behavior. The main strength of the article is that it sheds light on questions that have been largely neglected in the literature. There is little research on commuters and virtually none on their health or health behaviors. While there is a large amount of literature on cohabitation, very little of that literature examines the physical health or health behavior of cohabiters. Thus, this study adds considerably to our knowledge of how commuters and cohabiters differ from married and single persons in terms of health and health behavior.

For cohabiters, the evidence suggests that having a partner does not benefit either health or health behavior. In fact, while the reasons are not clear, it is clear that cohabiters tend to have poorer health and engage in poorer health behavior, compared to their single and married counterparts. The poorer health and poor health behaviors of cohabiters may be due to selection effects, rather than due to cohabitation per se. Clearly, more research is needed in this area.

More research is also needed about commuters. This data set—and other published research—leaves important gaps in our knowledge of who the commuters are. The evidence presented here, however, suggests that living apart from one's spouse is associated with poorer health behaviors, compared to those of married people living with their spouse.

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NOTES

1. The percents are based on calculations by the author using the data set used in this article.
2. See the U.S. Centers for Disease Control's definition of overweight and obesity at <http://www.cdc.gov/nccdphp/dnpa/obesity/defining.htm> (accessed June 13, 2009). The levels of BMI used to define overweight and obesity are the same for male and female adults.

3. If one is slightly underweight, that might be beneficial, but if one is substantially underweight, that might be detrimental. In fact, the mean BMI for "underweight" individuals is 17.4, while the median is 17.8; that is, most "underweight" individuals are close to the "healthy" range.
4. $M = 7.6$, $SD = 3.1$, skewness = $-.45$. A mean of 7.6 corresponds to an income of \$41,000.
5. The income of commuters seems surprisingly low. This is influenced by the relatively low educational attainment of many commuters as well as the fact commuters are disproportionately likely to be Hispanic.
6. The patterns I found are a little different from those found by Schoenborn et al. (2002). This may be because my analyses control for more covariates than theirs do.

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