Marriage and mental health in mid-life: A U.S.-Japan comparison

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Abstract

We evaluate how the association between marriage and mental health is shaped by social context in two distinctive cultural settings: the U.S. and Japan. We examine comparable data from the Surveys of Mid-life Development in the U.S. (MIDUS) and Japan (MIDJA). Our results indicate that marriage is associated with better general health, higher levels of positive affect, and lower levels of negative affect in both countries. We also find that the benefits are limited to those in happy marriages. Comparisons across the two countries reveal important gender differences. We find no gender differences in the health effects of marriage or martial quality in the U.S. yet the relationship between marriage and better mental health in Japan is much stronger for men than for women. These results highlight how cultural differences in the social valuation of marriage and gender relations within marriage shape adult health and well-being.

Introduction

Relationships between marriage and mental health have long interested social scientists. Evidence from early studies was consistent with the hypothesis that marriage affects the mental health of men and women differently, with "his marriage" benefiting men's mental health and "her marriage" detrimental to women's mental health (Bernard 1972; Gove and Tudor 1973). Subsequent work based on superior data and more sophisticated methodological approaches has convincingly demonstrated that marriage is positively associated with multiple dimensions of health and well-being for both men and women, although the magnitude of relationships varies widely across outcomes (Carr and Springer 2010; Waite 1995). It is also clear that better health among married persons reflects both the selection of healthier individuals into marriage and health benefits of marriage (Goldman 2001).

We currently know very little, however, about whether and how relationships between marriage and mental health may depend upon social context. Some research suggests that the benefits of marriage depend upon the cultural value that is placed on the institution vis a vis other social relationships, and upon the salience of marriage to one's identity (e.g., Simon 1997). For example, in cultural contexts where cohabitation is statistically and culturally normative, married persons fare no better than cohabiters on a range of health outcomes (Joutsenniemi et al., 2006). A better understanding of the ways in which sociocultural context shapes relationships between marriage and health is particularly important in light of growing heterogeneity in the nature and quality of marriages (Cherlin 2010). It is also important in light of major changes in marriage occurring in many societies that differ significantly from the U.S. and other western countries in terms of family arrangements, gender relations, and expectations regarding marriage. Recognizing the value of cross-national comparative research for elucidating the ways in which family outcomes and well-being are shaped by context, we use comparable data from surveys of adults in the U.S. and Japan to address the following questions:

1) Is marriage associated with better mental health?
2) Are the mental health advantages associated with marriage stronger for men than women?
3) Are the mental health benefits of marriage limited to those in higher quality marriages?
4) To what extent are the mental health benefits of marriage due to more favorable economic circumstances among married persons (especially for women)?
5) How do the patterns documented in questions 1-4 differ in the U.S. and Japan?

Data

We use data from the Surveys of Mid-life Development in the U.S. (MIDUS) and Japan (MIDJA). The MIDUS is a national study of health and aging among U.S. residents born between 1920 and 1970. Participants were first interviewed in 1995-96 (at ages 25 to 74) and were followed up in 2004-06 (at ages 34 to 83). The baseline study included a national sample, which was obtained through random digit dialing (RDD), and consists of respondents, siblings of many respondents, and a national sample of twins of the same age range as the national RDD sample. Respondents were English-speaking, non-institutionalized adults. The core RDD sample at Wave 2 includes 3,487 persons; we focus on the Wave 2 sample only to ensure better historical comparability with the Japanese counterparts of the MIDUS, the Midlife in Japan (MIDJA) study, which was conducted in 2008. MIDJA data were collected from 1,027 men and women age 30-79 (b. 1929-1978) living in the Tokyo metropolitan area (response rate of 56%). It is thus important to keep in mind that, unlike the MIDUS, MIDJA is not a nationally representative sample.

Both surveys collected detailed information on a range of measures of health and well-being. We focus on three subjective measures of well-being. *Global health* is measured with the single item "Using a scale from 0 to 10 where 0 means 'the worst possible health' and 10 means 'the best possible health,' how would you rate your health these days?. *Positive affect* (α = .87 [MIDUS], .93 [MIDJA]) is evaluated with the question: "during the past 30 days, how much of the time did you feel: (a) cheerful; (b) in good spirits; (c) extremely happy; (d) calm and peaceful;

(e) satisfied; and (f) full of life." *Negative affect* (α = .87 [MIDUS], .94 [MIDJA]) is assessed with the question: "during the past 30 days, how much of the time did you feel: (a) so sad nothing could cheer you up; (b) nervous; (c) restless or fidgety; (d) hopeless; (e) that everything was an effort; and (f) worthless." The five response categories were none of the time, a little of the time, some of the time, most of the time, and all of the time. Scale scores were constructed by averaging responses across each set of items, with higher scores reflecting more frequent positive or negative affect.

Our key covariates are marital status and marital quality. First, we consider a simple dichotomous indicator of being married versus unmarried in Japan, and a measure of whether one is married, formerly married, or never married in the United States. The decision to collapse formerly married and never married respondents into a single group in the MIDJA was based on the similarity of estimated coefficients and the small numbers in some groups – e.g., formerly married men. Second, we stratify married persons based on the quality of their marriage. Marital quality is assessed with the item, "Using a scale from 0 to 10 where 0 means 'the worst possible marriage or close relationship' and 10 means 'the best possible marriage or close relationship,' how would you rate your health these days?" Given the positive skew of the measure, we classify scores of 7 or higher as high quality marriages and scores of 6 and lower as poorer quality marriages. We then construct a multicategory variable comprising the categories of: high quality marriage; poorer quality marriage; unmarried (reference category). To evaluate whether the relationship between marital status and mental health is partially accounted for by financial well-being (Question 4 above), we control for perceived financial strain: respondents indicate on a 1-10 scale whether their current financial situation is the "worst possible" (1) or "best possible" (10) situation.

These measures allow us to ascertain relationships between marriage and a range of different aspects of mental/emotional health while also allowing for insights into the role of the gendered context of marriage. For example, prior studies suggest that marriage may have more powerful

effects on the physical health of men compared to women, because women typically enforce "social control" in marriage, ensuring that their spouse eats well, takes medications, and sleeps and exercises regularly (Umberson, Crosnoe and Reczek 2010). By contrast, some studies suggest that marriage, and marital quality, more specifically, are more closely tied to the psychological well-being of women relative to men (e.g., Proulx et al. 2007). Feminist writings dating back to the work of Jesse Bernard (1972) suggest that marriage and intimate relationships are more central to women's identities, and thus more consequential for their psychological well-being relative to men, because women typically "specialize" in nurturing roles such as spouse or parent, whereas husbands specialize in the role of worker (e.g., Cross & Madson, 1997). As such, women may feel responsible for solving marital problems and ensuring that the couple maintains a relatively high quality marriage (Beach et al., 2003; Davila et al., 2003; Dehle & Weiss, 1988). We posit that these gendered patterns will be more pronounced in Japan than in the United States, reflecting greater gender differentiation in socialization and well-defined boundaries between men's and women's roles in the work place and family (e.g., Brinton 1993; Yu 2009).

Because the MIDUS and MIDJA samples differ in some important ways, we have made efforts to make them more comparable. First, we limit our analysis of the MIDUS to the roughly 90 percent of respondents who self-identify as non-Hispanic White (European Americans). Given stark population-level differences in marital status and the duration and perceived quality of marriages among Blacks and Whites in the United States (e.g. Broman, 2005; Sweeney and Phillips, 2004), we focus only on Whites, who typically have higher rates of marriage, higher levels of marital quality and longer-duration marriages than Blacks, thus making them more comparable to the Japanese sample. We also limit the age range in the MIDUS to ages 30 to 79, to ensure age comparability with the MIDJA. The preliminary results presented here are from models that control for age only. In subsequent revisions, we will estimate more fully specified models.

Preliminary results

Table 1 presents descriptive statistics for the two samples. Compared to MIDUS respondents, MIDJA respondents report somewhat worse overall health, are less likely to be currently married, report lower levels of marital quality, are slightly younger, and report somewhat worse subjective economic well-being.

Question #1: Is marriage associated with better mental health?

Results of simple OLS models (controlling only for respondent's age and sex) indicate that marriage is associated with significantly better health on all three measures in both Japan and the United States (see Table 2, Model 1).

Question #2: Are the mental health advantages associated with marriage stronger for men?

To answer this question, we extended Model 1 by including a two-way interaction between marital status and sex. Model 2 (Table 2) shows that none of the two-way interaction terms was statistically significant for the U.S. sample. In contrast, the association between marriage and better health is significantly stronger for men in Japan for all three measures of mental health (the difference in the relationship between marriage and positive mood is only significant at $p < .10$).

Question #3: Is mental health better only for those in higher quality marriages?

Splitting marriages into those that are of lower and higher quality clearly demonstrates that the association between marriage and better mental health is limited to those in better marriages in Japan and the United States (see Model 3). In the U.S., the happily married report significantly better health, more positive mood, and less negative mood than unmarried persons, while those reporting poor marital quality fare significantly worse on each of the three outcomes than their unmarried counterparts (see Model 3). These patterns do not differ significantly by gender (see Model 4), and suggest that for Americans, it is more detrimental to be in an unhappy partnership than no partnership. Japanese study participants who are in lower quality marriages are no different from their unmarried counterparts while those in higher quality marriages fare significantly better on all three outcomes. Model 4 shows that Japanese men benefit more than

their female counterparts from higher quality marriages with respect to general health and negative affect (but not positive affect).

Question #4: To what extent are the mental health benefits of marriage due to more favorable economic circumstances among married persons (especially for women)?

As expected, Model 5 reveals that subjective economic well-being is associated with better health in both Japan and the United States, and this explains some of the estimated health advantage associated with marriage. In the U.S., the positive relationship between marriage and self-rated health was no longer statistically significant after controlling for perceived economic strain, and the size of the relationships with positive and negative affect each declined by roughly 50 percent, although remained statistically significant. In Japan, the association between marriage and better health remained statistically significant in both cases but, as it he U.S., control for subjective economic well-being attenuated the associated coefficients by 40-80%.

Question #6: How do the relationships in A-E differ in the U.S. and Japan?

In both cultural contexts, being married is associated with superior overall health, more positive mood, and less negative mood. Moreover, these advantages are more pronounced for those in happy versus unhappy marriages. In the United States, happily married persons fare better on all three outcomes relative to unmarried persons, whereas unhappily married persons fare worse than their unmarried counterparts. In Japan, happily married persons enjoy the largest health gains, yet unhappily married persons are no different than their unmarried counterparts. Thus, in the United States, our results suggest that being in an unhappy partnership is worse for one's well-being than being alone. This finding is consistent with recent studies and theoretical writings suggesting that marriage is entered into for the pursuit of personal happiness in the United States, rather than for more traditional reasons such as the bearing and rearing of children, or compliance with social norms or the expectations of kin. In contrast, the absence of any evidence of a health "penalty" for relatively unsatisfactory marriages in Japan may reflect strong (but weakening) social valuation of marriage, childbearing within marriage, and marriage as a source of intergenerational

support and solidarity. Similar levels of health among the unmarried and unhappily married may thus reflect social benefits of marriage that offset marriage-specific factors detrimental to mental health and/or social stressors associated with singlehood.

A second important difference we detect across the two contexts is that marriage is linked more strongly to men's well-being in Japan, yet we find no evidence of statistically significant gender differences in the effect of either marital status or marital quality in the U.S. This intriguing finding is consistent with research documenting the increasingly egalitarian nature of marriages in the U.S. and the absence of similar change in Japan. Relatively egalitarian, companionate marriages and a high propensity to dissolve unsatisfactory marriages in the U.S. suggests that men and women should benefit similarly. In Japan, highly asymmetric marriages, with women continuing to occupy a subordinate role (Tsuya and Mason 1995) and men contributing little to domestic work and childcare (Tsuya et al. 2005) and women's economic dependency limiting divorce at older ages offer a compelling explanation for the observed gender gap in the health benefits of marriage.

Next steps

Our next steps are to consider a broader range of potential pathways, including parenthood experiences, as well as richer measures of potential confounds, such as educational attainment, employment status, and the division of household labor within marriages. Attention to these factors will help us to explore more fully the distinctive ways that marital and gender relations shape well-being in the two distinctive cultural contexts of the United States and Japan.

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Table 1. Means (and Standard Deviations) or Proportions for All Variables Used in Analysis, MIDUS (2004-2006) and MIDJA (2008)

	MIDUS	MIDJA
Dependent Variables		
Self-rated physical health	7.41	6.22
(Range: 0 to 10)	(1.56)	(1.97)
Positive affect	3.41	3.18
(Range: 1 to 5)	(0.70)	(0.70)
Negative affect	1.50	1.80
(Range: 1 to 5)	(0.56)	(0.62)
Independent Variables		
Marriage Variables		
Currently married	.73	.69
Formerly married	.20	
Never married	.07	
Currently unmarried		.31
Marital quality	8.22	7.29
(Range: 0 to 10)	(1.89)	(2.00)
Currently in happy marriage	.63	.47
(i.e., quality >= 7		
Currently in unhappy marriage	.10	.22
(i.e., quality <= 6)		
Demographic Characteristics		
Age	55.31	54.36
	(11.60)	(14.14)
Sex (1 = female)	.55	.51
Potential Pathways		
Self-rated financial situation	6.52	5.22
(Range: 0 to 10)	(2.10)	(2.35)
N	2,634	1,027

Note: Due to relatively low rates of divorce in Japan, we contrast currently married with currently unmarried. In the United States, we subdivide the currently unmarried category into never married and formerly married (i.e., divorced, separated, widowed).

Table 2. Summary of OLS Regression Results Predicting Self-Rated Health, Positive Affect and Negative Affect, MIDUS (2004-06) and MIDJA (2008).

	MIDUS			MIDJA		
	Self-rated health	Positive affect	Negative affect	Self-rated health	Positive affect	Negative affect
Model 1						
Currently married	.235* (.106)	.155*** (.047)	-.118** (.038)	.531** (.134)	.318** (.046)	-.218** (.041)
Formerly married	-.013 (.119)	-.011 (.053)	.008 (.043)			
Adjusted R^2	.005	.029	.023	.022	.078	.066
Model 2						
Female	.047 (.201)	.026 (.089)	.068 (.072)	.824** (.222)	.367** (.076)	-.099 (.069)
Currently married	.261 (.152)	.170* (.068)	-.116* (.054)	.907** (.198)	.410** (.068)	-.310** (.061)
Formerly married	-.028 (.183)	.044 (.081)	-.035 (.065)			
Currently married * female	-.050 (.113)	-.028 (.094)	-.002 (.075)	-.690* (.268)	-.170† (.092)	.169* (.083)
Formerly married * female	.012 (.240)	-.088 (.107)	.065 (.086)			
Adjusted R^2	.005	.028	.023	.025	.080	.069
Model 3						
Happily married	.251* (.100)	.224*** (.044)	-.177*** (.035)	.849** (.141)	.480** (.047)	-.297** (.044)
Unhappily married	-.215† (.126)	-.285*** (.055)	.101* (.045)	-.123 (.167)	-.015 (.056)	-.055 (.052)
Formerly married	-.056 (.113)	-.01 (.049)	-.011 (.040)			
Adjusted R^2	.012	.072	.045	.056	.155	.088
Model 4						
Female	.058 (.108)	-.037 (.047)	.114** (.038)	.821** (.219)	.365** (.073)	-.098 (.068)
Happily married	.266* (.127)	.196*** (.053)	-.145*** (.043)	1.199** (.204)	.545** (.068)	-.376** (.063)
Unhappily married	-.133 (.70)	-.319*** (.074)	.123* (.060)	.147 (.252)	.057 (.084)	-.137 (.078)
Formerly married	-.062 (.114)	-.003 (.050)	-.019 (.040)			
Happily married * female	-.029 (.127)	.052 (.055)	-.061 (.045)	-.663* (.282)	-.122 (.094)	.148† (.088)
Unhappily married * female	-.144 (.208)	.062 (.088)	-.042 (.072)	-.472 (.336)	-.127 (.113)	.144 (.104)
Adjusted R^2	.012	.072	.045	.059	.155	.089

Table 2
(cont'd)

	MIDUS			MIDJA		
	Self-rated health	Positive affect	Negative affect	Self-rated health	Positive affect	Negative affect
Model 5						
Currently married	.110 (.102)	.093* (.045)	-.070* (.036)	.290* (.026)	.228** (.044)	-.151** (.040)
Formerly married	.082 (.115)	.036 (.050)	-.029 (.041)			
Self-rated economic well-being	.212*** (.013)	.105*** (.006)	.082 (.004)	.252** (.026)	.094** (.009)	-.069** (.008)
Adjusted R^2	.082	.122	.112	.106	.176	.131
N	2,634			999	995	996

Notes: The omitted marital status category for models based on the MIDUS includes never married persons; the omitted category for models based on the MIDJAC includes currently unmarried persons (i.e., formerly and never married persons). All models are adjusted for sex and age (in years).
Unstandardized regression coefficients and standard errors are presented above. Statistical significance is denoted as †$p < 0.10$; * $p < 0.05$; ** $p < 0.01$.