

Original Article

Marital Quality and Negative Experienced Well-Being: An Assessment of Actor and Partner Effects Among Older Married Persons

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Abstract

Objectives. We evaluate (a) associations between marital quality (emotional support, strain, and overall appraisal) and three negative aspects of experienced well-being (frustration, sadness, and worry) among older husbands and wives and (b) the relative importance of own versus spouse's marital quality assessments for understanding experienced well-being in later life.

Method. Data are from the 2009 Disability and Use of Time daily diary supplement to the Panel Study of Income Dynamics ($N = 722$). We estimate actor–partner interdependence models, using seemingly unrelated regression.

Results. Own reports of marital strain are associated with own frustration, sadness, and worry among wives and are associated with frustration only among husbands. Own reports of marital support are associated with negative emotion among husbands only: higher levels of marital support are associated with less worry. Results from partner effects analyses also are mixed. Husbands' reports of marital strain are associated with wives' elevated frustration levels, whereas wives' reports of greater marital support are associated with their husbands' higher frustration levels.

Discussion. One's own and spouse's marital appraisals play a complex role in shaping negative emotions among older adults. Findings suggest that frustration is a particularly complex emotion and a promising area for further study among older married couples.

Key Words: Couple-level models—Experienced well-being—Marital quality—Marriage—Negative emotions

The protective effects of marriage for older adults' emotional health are widely documented (Carr & Springer, 2010). However, these effects are conditional upon the quality of the marriage; troubled marriages take a toll, whereas high-quality marriages provide direct benefits for psychological well-being and may buffer against the health-depleting effects of later-life stressors such as caregiving (e.g., Proulx, Helms, & Buehler, 2007). Marital support also is a critical resource as older couples manage

complex health regimens (Berg & Upchurch, 2007) and formulate decisions regarding their end-of-life health care (Carr, Moorman, & Boerner, 2013). The association between marital quality and well-being among older adults in long-term marriages is generally well established, yet several methodological and substantive issues remain unexplored.

First, most studies focus on one spouse's marital appraisal only and fail to consider that both spouses' appraisals may

contribute independently to emotional well-being and distress (i.e., actor and partner effects; Cook & Kenny, 2005). Although research on “crossover effects” (Larson & Almeida, 1999) suggests that one spouse’s marital (dis)satisfaction may be linked with their partner’s emotional well-being, such studies typically focus on young or midlife persons (Beach, Katz, Kim, & Brody, 2003; Whisman, Uebelacker & Weinstock, 2004).

Second, most research on the psychosocial correlates of older adult’s emotional well-being focuses on broad aspects of positive and negative well-being such as global life satisfaction or depressive symptoms rather than specific discrete emotions such as frustration or anxiety (Perry, Chipperfield, Weiner, & Chuchmach, 1997). A focus on these distinctive and complex emotions may provide new insights into the specific ways that positive and negative marital experiences shape late-life well-being. Third, most studies rely on aggregated assessments capturing one’s feelings of sadness or life satisfaction over an extended time period, typically the past week (e.g., Beach et al., 2003). These retrospective measures may be more susceptible to recall bias than momentary measures capturing one’s current emotional state, especially among older adults (National Research Council, 2013; Reed & Carstensen, 2012).

In an effort to address these gaps, we explore linkages between older husbands’ and wives’ marital quality assessments and three negative aspects of experienced well-being (ExWB): frustration, sadness, and worry. We also assess differences in how own (“actor”) and spouse’s (“partner”) marital appraisals are associated with ExWB. Data are from the 2009 Disability and Use of Time (DUST) supplement to the Panel Study of Income Dynamics, which includes 24-hour time diaries capturing activities and emotions experienced on the previous day.

Background

Marital Quality and Experienced Well-Being

Marital quality is inversely associated with psychological distress, and this association is typically stronger among women than men (Proulx et al., 2007). However, most studies focus on aggregated assessments of one’s emotional state, such as overall life satisfaction or depressive symptoms over an extensive time period, such as the past week or two (e.g., Beach et al., 2003). Recent research suggests that these aggregated measures may not adequately capture negative emotions among older adults, given their tendency to attend to and remember more positive than negative information, and to offer more positive retrospective assessments of their lives than their younger counterparts (e.g., Reed & Carstensen, 2012).

Our study builds on prior work by examining associations between marital quality and three conceptually and statistically distinct aspects of momentary negative ExWB: sadness, worry, and frustration (Kapteyn, Lee, Tassot, Vonkova, & Zamarro, 2013). Although early research suggests that older adults are less likely than their younger

counterparts to express negative emotions, contemporary scholarship using momentary measures shows that a sizeable minority of older adults report such emotions on a daily basis. For example, two studies found that 30%–40% of older adults reported current feelings of frustration or sadness (Chipperfield, Perry, & Weiner, 2003), whereas more than 40% reported anxiety or worry, assessed using experience-sampling methods (Carstensen, Pasupathi, Mayr, & Nesselroade, 2000). Despite the frequency with which older adults experience discrete negative emotions in their daily lives, little is known about their psychosocial correlates. A database search of all articles on aging and emotion published between 1970 and 1996 found that several hundred focused on global life satisfaction and depressed affect, yet fewer than five articles explored particular discrete emotions such as frustration or worry (Perry et al., 1997).

We propose that sadness, worry, and frustration may be linked to marital quality in distinctive ways. Sadness is a core component of depressed affect, which encompasses feelings of sorrow, despair, or hopelessness (Horwitz & Wakefield, 2007). Worry is a core symptom of anxiety, or feelings of uncertainty and concern about a real or imagined threat (Horwitz, 2014). We expect that worry and sadness will be positively related to marital strain and inversely related to emotional support from one’s spouse, consistent with prior studies of marital interactions and emotional well-being (Proulx et al., 2007). We expect stronger effects for wives than husbands, consistent with prior work showing that women find relationship strains more upsetting than do men (Kiecolt-Glaser & Newton, 2001). Current cohorts of older women may feel responsible for sustaining the emotional climate of one’s marriage, thus marital strain may be particularly salient to their emotional well-being (Beach et al., 2003).

Frustration is a less frequently studied emotional state, yet it may be particularly relevant to understanding the well-being of older married adults. Frustration is an emotional reaction to obstacles that impede one’s pursuit of personal or relationship goals (Berkowitz, 1989). When older adults are blocked access to a goal, whether internally or externally, they may feel that their individual will and efficacy are undermined (Weiner, 1972). Internal frustration arises from difficulties in fulfilling one’s personal goals, preferences, and desires. External causes of frustration involve conditions outside an individual, such as a difficult task or controlling spouse (Weiner, 1972). We expect that marital quality will correlate with frustration in complex ways. On one hand, marital support may reduce and marital strain may exacerbate frustration. Emotional support facilitates one’s pursuit of personal goals and makes individuals feel encouraged in their endeavors (Lang & Carstensen, 2002). Alternatively, individuals providing high levels of marital support may feel frustrated, if these spouse-focused actions prevent them from carrying out the other activities they would like to do (Patrick, Knee, Canevello, & Lonsbary, 2007). Receiving high levels of spousal support, by contrast, may convey the message that one is needy or incapable of

acting independently, thus engendering frustration (Allen & Wiles, 2014).

His and Hers Marital Quality Appraisals: Evaluating Actor and Partner Effects

Our study builds on prior work in an additional way; we explore associations between both own and spouse's marital quality assessments and three aspects of negative E×WB. Most studies of late-life marriage focus on one individual within the marital dyad, "despite the importance of relationship interdependencies . . . to the study of aging" (Windsor, Ryan, & Smith, 2009, p 586). This limitation is due, in part, to traditional models of data collection where one person answers survey questions on his or her perceived relationship quality and well-being (Carr & Springer, 2010). However, spouses do not necessarily view their marriages similarly; spouses' marital quality assessments are correlated only modestly ($r < .50$), even in long-term relationships (Carr & Boerner, 2009; Carr, Freedman, Cornman, & Schwarz, 2014).

Over the past decade, studies have explored "actor and partner" effects or the extent to which one individual's experiences or traits affect a significant other, such as a spouse (Cook & Kenny, 2005). For example, persons who feel supported may be motivated to reciprocate and provide support and encouragement to their partner, thereby protecting them against momentary negative emotions. Conversely, if one partner is troubled by what they perceive to be low levels of emotional support from their spouse, he or she could act negatively toward them by criticizing or withdrawing affection, thus triggering worry, sadness, or frustration on the part of their spouse. In this way, one partner's marital quality appraisals may be linked to the emotional well-being of the other. Prior work suggests that wives' marital appraisals may be more strongly linked to husbands' well-being than vice versa, especially among current cohorts of older adults who were socialized into more gender-typed behaviors and interactional styles than subsequent cohorts (Carr et al., 2014). Wives tend to play a more active role than husbands in communicating, instigating change in a partner's behavior, initiating and pursuing disagreements, and conveying concerns about the marriage (Bloch, Haase, & Levenson, 2014). As such, a wife's perceptions of marital strain or support may impel her to act toward her husband in ways that directly affect his daily emotional well-being. By contrast, men tend to take a more passive or silent approach to addressing marital issues; their feelings toward the marriage may not be clearly transmitted to their spouse and thus may be less consequential for their partner's daily emotional well-being (Christensen & Heavey, 1990).

Dyadic studies of marital quality and well-being have yielded inconclusive findings. A study of married parents of teenage children found that one partner's marital appraisals affected the other spouse's depressive symptoms (Beach et al., 2003), whereas a study of newlyweds found no evidence of partner effects (Fincham, Beach, Harold, & Osborne, 1997).

These results suggest that partner effects may become evident only in longer-term marriages, in which spouses are knowledgeable about and sensitive to fluctuations in one another's attitudes and feelings. A handful of studies have focused on crossover effects among older couples, yet most focus on small nonrepresentative samples or focus on crossover effects in the context of coping with chronic illness (e.g., Berg & Upchurch 2007). To evaluate whether partner effects are evident in long-term marriages among a nationally representative sample of older adults, we take advantage of the couple-based design of DUST and evaluate whether spousal marital appraisals are associated with one's E×WB, independent of one's own marital appraisals.

Other Influences on Marital Quality and Experienced Well-Being

We evaluate the extent to which associations between own and spouse's marital quality and E×WB persist when we control for demographic and socioeconomic characteristics that are well-documented correlates of both marital satisfaction and emotional well-being. Analyses are adjusted for age (Mroczek & Spiro, 2005; Proulx et al., 2007), race (Broman, 2005; Krause, 1993), own and spouse's physical health (Butterworth & Rodgers, 2006), socioeconomic status (White & Rogers, 2000), marital duration (Umberson et al., 2006), whether one is in a first- or higher-order marriage (Mirecki, Chou, Elliott, & Schneider, 2013), and presence and number of children (Umberson, Pudrovska, & Reczek, 2010). We also control for characteristics of the specific activities to which one was referring when describing one's mood on the study day; the E×WB measures capture one's feelings while performing up to three such randomly selected activities.

Method

Data

Analyses are based on data from the DUST supplement (Freedman & Cornman, 2012) to the 2009 Panel Study of Income Dynamics (PSID), a national panel study of a representative sample of families in the United States first conducted in 1968 with 18,000 individuals in approximately 5,000 families. All respondents from the original sample, anyone born to or adopted by one of these families, and adult children as they leave their parents' household have been followed, resulting in a nationally representative cross-section of U.S. families (McGonagle & Schoeni, 2006). Interviews were conducted annually between 1968 and 1997 and biennially thereafter. Re-interview rates for original sample members have been consistently 98% per year (96% over 2 years) and the sample of families now exceeds 8,000. In 2009, the response rate for the PSID (including split-off households) was 94.3%.

DUST sampled couples in the 2009 PSID in which both spouses were at least 50 years old and at least one spouse was at least 60 years old as of December 31, 2008.

Most married persons in the PSID aged 60 and older have spouses who are aged 50 and older; thus, the sample does not represent the small fraction (~5%) of couples in which one spouse is aged 60 or older and the other is younger than 50 years.

The DUST instrument was administered by telephone within a few months after the 2009 core PSID interview (Freedman & Cornman, 2012). DUST was designed as a 30-minute diary. It was paired during the first of two interviews with a 15-minute supplemental questionnaire assessing marital quality, stylized time use, E×WB, and physical function. To obtain a balanced sample of days, couples were systematically assigned interview days that would yield one weekday and one weekend day diary; thus, up to four daily diaries could be completed per couple. Husbands and wives were interviewed separately but on the same date. The diary obtained information on all activities performed on the previous day, beginning at 4 a.m. and continuing until 4 a.m. the day of interview. Respondents also were asked how they felt while doing up to three randomly selected activities from the diaries; this approach is based on the validated day reconstruction method developed to measure E×WB (Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004). Comparison of momentary measures collected through 24-hour diary format with real-time experience sampling methods suggests very good agreement (Dockray et al., 2010).

Of the 543 eligible couples sampled for DUST, at least one diary was completed for 394 couples, resulting in a 73% response rate. About 4% of respondents ($n = 33$) had a spouse with a permanent health condition that precluded participation. We restrict our analysis to couples for whom we have both spouses' reports of marital support and strain ($n = 361$). In total, we have 722 paired husband–wife diary days and 1,920 paired activities. In limiting activities to paired husband–wife activities in paired husband–wife diaries resulted in a slightly higher proportion of weekend activities than would be expected because weekday activities were slightly more likely to have one spouse interviewed without the other. However, this restriction does not bias our results, as weekend activities do not differ significantly with respect to reported levels of sadness, worry, or frustration.

Measures

Experienced well-being measures capture how frustrated, sad, and worried a respondent felt while doing each of the three randomly selected diary activities. Using a range of 0 (*not at all*) to 6 (*very*), respondents reported how much they felt each way about each of these activities. We found modest zero-order correlations among the three emotions (ranging from .42 to .61 across husbands and wives), suggesting that each item captures a distinct yet interrelated construct.

Marital quality is derived from a subset of six items drawn from a standardized instrument reflecting both marital strain and affective support (Schuster, Kessler, & Aseltine, 1990). *Support* ($\alpha = .71$) indicates how much “you

can open up to your spouse if you need to talk about your worries,” “your spouse appreciates you,” and “your spouse understands the way you feel about things.” *Strain* ($\alpha = .71$) refers to how much your spouse “argues with you,” “makes you feel tense,” and “gets on your nerves.” Response categories range from 1 (*not at all*) to 4 (*a lot*). Responses are averaged and higher values reflect more of an attribute. We also constructed an overall marital quality measure ($\alpha = .78$), which averaged the support and reverse-coded strain subscales; overall scores indicate a higher quality marriage.

Control Variables

We evaluate the extent to which associations between marital quality and E×WB persist when we control for respondent (actor), spouse (partner), and couple characteristics that may potentially confound the statistical association between marital quality and E×WB. Respondent and spouse characteristics include *age* (50–69, 70–79, 80+ for men; 50–59, 60–69, 70+ for women), *self-rated health* (excellent, very good, good, fair, or poor, where higher scores reflect poorer health), and *disability*. The different age cutpoints for husbands and wives reflect the fact that at least one member of the dyad had to be aged 60 or older for study inclusion, and men tend to marry women younger than themselves. We use categorical rather than a continuous measure of age because the association between age and E×WB in our sample is nonlinear. Disability refers to whether one has “serious difficulty” with hearing; seeing even when wearing glasses; concentrating; remembering or making decisions because of a physical, mental, or emotional condition; walking or climbing stairs; difficulty dressing or bathing; and doing errands alone such as visiting a doctor’s office or shopping because of a physical, mental, or emotional condition. This measure was developed for the American Community Survey (Weathers, 2005). Respondent characteristics also include *race* (whether one is Black) and *educational attainment* (years of completed schooling). We also control for five couple-level characteristics: *order of marriage* (whether both spouses are in their first marriage; husband, wife, or both in a second marriage is the reference category); *marital duration* (in years); whether a couple is *childless* (1 = childless, 0 = has any children); and *total 2008 household income* and *total 2008 wealth* (both in quartiles).

Because E×WB was assessed in the context of daily activities, we also control for whether the activity was performed *on a weekend* (vs. weekday), *at home* (vs. elsewhere), *with the spouse* (vs. alone or with someone else), and which of 17 different activity categories best captures the *nature of the randomly selected activity*. Because the activity categories are mutually exclusive, we use traveling to, from, or between activities as the reference group. Only 5% of activities were reported as having a secondary activity, such as eating while watching TV. In preliminary analyses, we adjusted for whether one was engaged in a secondary activity, but this indicator was not associated with E×WB and was dropped from the final analyses.

PSID has minimal missing data; across the marital quality, demographic and health variables, 21 (2.9%) or fewer respondents were missing data on any one variable. For the variables describing the diary day or activity, at most 24 (0.6%) activities have missing data on any one variable. All variables except one (education) have less than 1.5% missing data; we recoded the missing data to the modal category of the variable. Education had missing data for 2.9% of cases, thus we imputed the age–sex specific mode. Given the very low level of missing data (and hence trivial impact on variance estimates), we used mean imputation rather than more complex multiple imputation techniques.

Analytic Strategy

We first present weighted descriptive statistics for husbands and wives (Table 1). We then examined the unadjusted associations between both own and spouse's marital quality appraisals and the three aspects of ExWB. Associations between own (actor) and spouse's (partner) marital quality assessments with ExWB barely changed in magnitude or statistical significance when we added control variables to our initial unadjusted models, thus we show only the adjusted model coefficients (Table 2). We also re-estimated all models using a logged version of the dependent variable to account for skew in reported levels of ExWB; results were nearly identical to those found using the six-point outcome, thus we use the actual scores to simplify the presentation of results. Analyses are performed in Stata 11.1.

We estimated actor–partner interdependence models (APIM; Cook & Kenny 2005), using seemingly unrelated regression (SUR). In APIM, the effect of own and spouse characteristics are referred to as actor and partner effects, respectively. This approach accounts for nonindependence of husbands' and wives' evaluations of momentary distress (Cook & Kenny, 2005) and allows us to test whether the association between marital quality and ExWB differs for husbands and wives. The zero-order correlations between spouses' frustration, sadness, and worry scores are .07, .15, and .11, respectively. We used an adjusted Wald test to test the equality of coefficients for husbands and wives.

Respondent-level descriptive statistics are weighted to take into account differential subsampling of eligible PSID couples across strata and differential nonresponse by strata. Weights for activity-level descriptive statistics and the regression models are further adjusted for the overrepresentation of weekend days, differential response rates by day of the week, and the fact that activities of longer duration have a greater chance of being randomly selected for the sample of activities for which ExWB is assessed. By using a cluster variable that combines the sampling cluster (primary sampling unit) variable and the respondent ID, standard errors in the regression models are adjusted for survey design and for the fact that multiple observations (e.g., activities) are drawn from one respondent. The clustering is at the couple level.

Results

Bivariate Analysis

Table 1 shows that sample members have very low levels of negative emotions and that gender differences emerge for sadness but not for frustration nor for worry. Consistent with a large literature revealing women's higher levels of depressed affect relative to men, we find that wives report significantly higher levels of sadness than husbands (0.4 vs. 0.3, $p = .005$). Also consistent with prior studies of marital quality, husbands rate their marriages more positively than wives (3.3 vs. 3.1; $p < .001$). Husbands report significantly higher levels of emotional support (3.6 vs. 3.5, $p < .001$) and lower levels of strain (2.0 vs. 2.2, $p < .001$), relative to wives. Wives are younger than husbands and are less likely to report a disability (36.1% vs. 44.3%) yet also report slightly poorer health; the latter two differences are not statistically significant. The average marital duration is 38.5 years ($SD = 14.6$). Two thirds (68%) of couples are in their first marriage, and 4.1% of couples have no children.

One third of the randomly selected activities occurred on the weekend or were done with a spouse. Wives' activities were more likely than husbands' to take place at home (59% vs. 46%, $p < .001$). Husbands are more likely than wives to have been working for pay and traveling on the study day, whereas women were more likely to have prepared food, done household chores, or socialized. ExWB levels did not differ significantly for activities done with versus without one's spouse (results not shown) nor did they differ based on whether they were done on a weekend or weekday, a finding consistent with prior studies of well-being among older adults and retirees (Stone, Schneider, & Harter, 2012).

Multivariate Analyses

Table 2 displays, separately for husbands and wives, the coefficients of husbands' and wives' own (actor) and spouse's (partner) marital quality appraisals on own ExWB, net of other actor, partner, couple and activity characteristics. Because our primary focus is the association between marital quality and negative aspects of ExWB, we present coefficients for marital quality and couple characteristics only (complete models available from authors). Husbands' and wives' own reports of overall marital quality are significantly and inversely associated with frustration ($b = -0.41$ and -0.36 , $p < .01$), sadness ($b = -0.16$ and -0.28 , $p < .01$), and worry ($b = -0.21$ and -0.23 , $p < .05$), respectively. To put these effect sizes in perspective, the coefficients for frustration, sadness, and worry are roughly 0.20 to 0.25 SD .

When we consider positive and negative components of marital quality separately, we find stronger associations for marital strain than support. Own reports of marital strain are linked with higher levels of frustration for both husbands and wives ($b = 0.23$, $p < .05$ and 0.41 , $p < .001$). However, strain is linked with significantly higher levels of sadness ($b = 0.22$, $p < .05$) and worry ($b = 0.22$, $p < .05$) for wives only; these gender differences are marginally significant ($p = .09$ and $.11$, respectively; full models available from authors). These results

Table 1. Weighted Means (SD) or Percentages for All Variables Used in Analysis, by Gender

	Husbands (<i>n</i> = 361)	Wives (<i>n</i> = 361)	<i>p</i> -values ^a
Experienced well-being (ExWB) during activities yesterday			
Frustration (range: 0–6)	0.8 (1.55)	0.9 (1.60)	.178
Sadness (range: 0–6)	0.3 (0.88)	0.4 (1.09)	.005
Worry (range: 0 to 6)	0.5 (1.21)	0.6 (1.27)	.356
Marital quality			
Overall marital quality (range: 1–4)	3.3 (0.53)	3.1 (0.57)	<.001
Marital support (range: 1–4)	3.6 (0.53)	3.5 (0.60)	<.001
Marital strain (range: 1–4)	2.0 (0.67)	2.2 (0.70)	<.001
Actor/partner characteristics			
Age			<.001
50–69 husbands/50–59 wives	58.6	17.9	
70–79 husbands/60–69 wives	27.3	52.7	
80+ husbands/70+ wives	14.1	29.4	
Completed education (in years)	13.9 (2.72)	13.3 (2.35)	<.001
Race (1 = Black; 0 = non-Black)	2.9	2.6	.325
Has a disability (1 = yes)	44.3	36.1	.087
Self-rated health (1 = <i>excellent</i> to 5 = <i>poor</i>)	2.6 (1.13)	2.7 (1.08)	.069
Couple characteristics (<i>n</i> = 361 couples)			
First marriage for both spouses	67.6		N/A
Years married	38.5 (14.57)		N/A
No children	4.1		N/A
Income, 2008 (in 1,000s)	90.3 (82.08)		N/A
Wealth/assets, 2009 (in 100,000s)	15.9 (89.44)		N/A
Characteristics of activities			
On the weekend (1 = yes)	31.6	34.4	.105
At home (1 = yes)	46.3	59.1	<.001
With spouse (1 = yes)	32.5	30.8	.488
Percent participating in activities yesterday			
Self-maintenance	8.2	7.5	.630
Eating	11.7	10.9	.658
Working for pay	8.3	4.7	.012
Shopping for food	1.8	1.9	.899
Shopping for other goods	3.2	2.7	.578
Preparing food	2.6	12.6	<.001
Doing household chores	1.3	5.5	<.001
Doing household maintenance	7.9	6.1	.220
Managing finances	2.6	1.6	.177
Caring for others	1.3	1.7	.549
Socializing	5.5	8.2	.047
Watching TV/movies	9.9	7.6	.070
Doing other nonactive leisure activities	6.8	7.0	.821
Doing active leisure activities	3.2	2.6	.510
Doing organizational activities	1.7	1.1	.153
Using the computer	4.5	3.4	.320
Traveling	19.8	14.7	.037
Number of activities	1,920	1,920	

Note. ^aWe conducted *t*-tests to evaluate statistically significant gender differences for continuous variables and a two-sample test of equality for categorical measures.

are consistent with prior studies showing that marital strain is a more powerful predictor of distress for older women versus men (Kiecolt-Glaser & Newton, 2001). The associations detected here are large relative to other independent variables in the models, ranging from 0.15 to 0.30 *SD*.

Also consistent with prior studies, we find that own reports of marital support are only weakly linked to ExWB; for men only, support diminishes worry ($b = -0.23, p < .05$). However, the magnitude of the associations between own reports of marital strain and support and ExWB do not differ

Table 2. Weighted Seemingly Unrelated Regression (SUR) Models^a Predicting Momentary Frustration, Sadness, and Worry by Own and Spouse's Marital Quality (MQ) Appraisals and Control Variables, Among Husbands (H) and Wives (W) in the DUST

	Frustration				Sadness				Worry			
	MQ full scale		MQ subscales		MQ full scale		MQ subscales		MQ full scale		MQ subscales	
	H	W	H	W	H	W	H	W	H	W	H	W
MQ full scale												
Actor	-0.41**	-0.36**			-0.16**	-0.28**			-0.21*	-0.23*		
	(0.12)	(0.12)			(0.05)	(0.09)			(0.10)	(0.10)		
Partner	0.17	-0.16			-0.02	-0.07			0.05	-0.12		
	(0.11)	(0.15)			(0.07)	(0.11)			(0.10)	(0.11)		
MQ subscales												
Actor												
Support scale			-0.14	0.09			-0.16	-0.04			-0.23*	0.01
			(0.12)	(0.14)			(0.10)	(0.12)			(0.11)	(0.12)
Strain scale			0.23*	0.41**			0.02	0.22*			0.01	0.22*
			(0.10)	(0.11)			(0.06)	(0.10)			(0.09)	(0.10)
Partner												
Support scale			0.28**	0.29			0.00	0.06			0.13	0.12
			(0.10)	(0.18)			(0.06)	(0.13)			(0.08)	(0.12)
Strain scale			0.08	0.30*			0.01	0.09			0.06	0.17
			(0.10)	(0.12)			(0.05)	(0.08)			(0.09)	(0.09)
Couple characteristics												
1st marriage both spouses	0.20	0.29	0.18	0.23	0.22	0.42**	0.23*	0.40**	0.13	0.28	0.15	0.25
	(0.15)	(0.20)	(0.15)	(0.19)	(0.11)	(0.14)	(0.11)	(0.14)	(0.13)	(0.16)	(0.13)	(0.16)
No children	-0.60**	-0.43	-0.63*	-0.47	-0.29*	-0.12	-0.31**	-0.14	-0.47**	-0.24	-0.52**	-0.26
	(0.22)	(0.24)	(0.24)	(0.26)	(0.10)	(0.24)	(0.11)	(0.24)	(0.12)	(0.33)	(0.13)	(0.33)
Years married	-0.01	0.00	-0.00	0.00	-0.01	-0.01*	-0.01	-0.01*	-0.01	-0.01	-0.01	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)	(0.01)
Couple income												
2nd quartile	0.11	0.04	0.13	0.09	0.12	0.03	0.12	0.05	-0.01	0.06	0.00	0.08
	(0.17)	(0.19)	(0.17)	(0.18)	(0.11)	(0.12)	(0.10)	(0.12)	(0.16)	(0.14)	(0.15)	(0.14)
3rd quartile	-0.03	-0.11	-0.00	-0.01	0.17	0.15	0.16	0.18	-0.13	0.07	-0.13	0.11
	(0.20)	(0.20)	(0.20)	(0.18)	(0.12)	(0.13)	(0.12)	(0.13)	(0.18)	(0.16)	(0.18)	(0.16)
4th quartile	-0.03	0.30	-0.03	0.38	0.16	0.41**	0.14	0.43**	0.01	0.44*	-0.02	0.47**
	(0.23)	(0.22)	(0.23)	(0.20)	(0.14)	(0.14)	(0.14)	(0.14)	(0.22)	(0.17)	(0.22)	(0.17)
Couple wealth												
2nd quartile	-0.07	-0.25	-0.05	-0.22	-0.18	-0.03	-0.19	-0.02	-0.15	0.05	-0.15	0.06
	(0.17)	(0.25)	(0.17)	(0.23)	(0.12)	(0.15)	(0.12)	(0.15)	(0.16)	(0.19)	(0.16)	(0.18)
3rd quartile	0.01	0.00	0.03	0.04	-0.09	-0.11	-0.10	-0.10	-0.13	-0.08	-0.13	-0.06
	(0.16)	(0.26)	(0.16)	(0.24)	(0.12)	(0.14)	(0.12)	(0.14)	(0.16)	(0.18)	(0.16)	(0.18)
4th quartile	0.16	-0.22	0.15	-0.22	-0.12	-0.03	-0.12	-0.03	-0.10	-0.11	-0.11	-0.11
	(0.20)	(0.24)	(0.19)	(0.23)	(0.12)	(0.15)	(0.12)	(0.15)	(0.18)	(0.19)	(0.18)	(0.19)
Actor intercept	1.56*	2.48**	-0.46	-1.90	0.68*	2.27**	0.60	0.50	0.93	2.05**	0.61	-0.33
	(0.62)	(0.90)	(0.79)	(1.32)	(0.35)	(0.72)	(0.57)	(1.22)	(0.54)	(0.75)	(0.68)	(1.22)
ρ(SE)	-0.01 (0.03)		-0.02 (0.03)		0.10 (0.03)**		0.10 (0.04)**		0.07 (0.03)**		0.07 (0.03)**	
F-statistic ^b	8.99**		9.36**		2.80**		2.67**		3.97**		3.87**	

Notes. Unstandardized regression coefficients and standard errors; *n* = 1,920 husband activities and 1,920 wife activities.

^aAll models also control for actor, partner, and activity characteristics (see Table 1).

^bMQ full-scale model, *F*-statistic *df* = 84,246; MQ subscale model, *F*-statistic *df* = 88, 242.

p* < .05. *p* < .01.

significantly by gender. Moreover, none of the associations differed significantly based on whether the daily activity reported was done with one's spouse, nor whether the referent activity was paid work, household work, leisure, or

self-care (results not shown, all models are available from the authors).

We found limited evidence of crossover effects, with two exceptions. First, among husbands, their own frustration is

significantly and positively linked to wives' reports of marital support ($b = 0.28, p < .01$); as wives report higher levels of emotional support from their husbands, their husbands report significantly more frustration. Second, wives report significantly more frustration as their husbands' reports of marital strain increase ($b = 0.30, p < .05$). Neither sadness nor worry is associated with one's spouse's marital appraisals.

Older adults' ExWB is linked to other aspects of health and family life. Husbands in childless marriages report significantly lower levels of frustration, sadness, and worry than do husbands in couples with children ($b = -0.60, p < .01$; $b = -0.29, p < .01$; and $b = -0.47, p < .01$, respectively). Wives in first marriages report significantly more sadness than women in marriages in which at least one spouse was previously married ($b = 0.42, p < .01$), although sadness is inversely related to marital duration ($b = -0.01, p < .05$). Finally, one's own disability is associated with heightened sadness among women, whereas poorer self-rated health is associated with heightened frustration, sadness, and worry among men (results not shown).

Discussion

Our analysis is the first we know of to explore associations between own and spouse's marital quality appraisals and three negative aspects of ExWB among a nationally representative sample of married older adults. The findings, based on a unique daily diary data set, offer new insights into the complex associations between marital quality and discrete negative emotions in later life and provide some evidence of crossover effects, whereby one partner's marital appraisals are associated with the other partner's emotional well-being. We know of no other studies exploring the distinctive ways that both partners' marital appraisals affect older adults' momentary sadness, worry, and frustration, which are among the most common negative emotions reported by older adults in everyday life (Carstensen et al., 2000; Chipperfield et al., 2003).

Marital Strain Strongly Linked to Husbands' and Wives' Experienced Well-Being

We find that one's own perception of marital quality is strongly associated with negative aspects of ExWB; overall marital appraisals are significantly related to frustration, sadness, and worry among both husbands and wives. However, analyses focused on the marital quality subscales reveal that these associations are stronger for strain than for support. Marital strain is associated with higher levels of frustration for husbands and wives, yet it is associated with higher levels of sadness and worry for wives only. By contrast, support is associated with lower levels of worry among men only. These results are consistent with prior studies showing that negative marital interactions are more salient to one's emotional health than are positive relations, especially in later life (Proulx et al., 2007; Whisman, Uebelacker, Tolejko, Chatav, & McKelvie,

2006). Older adults in long-term marriages typically report more frequent positive and less frequent negative interactions than do younger couples (Henry, Berg, Smith, & Florsheim, 2007) and also are more likely to actively avoid conflict (Birditt & Fingerman, 2005), rendering these atypical negative interactions highly salient to one's emotional well-being. We detected only one instance in which positive aspects of marriage were linked to one's own ExWB; men who reported high levels of marital support from their wives reported significantly reduced levels of worry. Prior studies suggest that older men's positive appraisals of marital support reflect their perceptions of what their wife does to support them rather than the support they offer to their wife (Boerner et al., 2014). As such, feelings of received emotional support may be particularly important in assuaging older men's anxiety, as they face physical and cognitive challenges associated with aging.

With the few exceptions noted earlier, the magnitude of the associations between one's own marital quality appraisals and ExWB do not differ significantly by gender. These patterns are consistent with empirical studies summarized in a recent meta-analysis (Jackson, Miller, Oka, & Henry, 2014). With advancing age and limited future time horizons, both men and women may pare down the number of social contacts they maintain and invest most heavily in those relationships deemed most important, especially one's marital relationship (Lang & Carstensen, 2002). Men's work-related social ties and women's friendships may diminish in number, whether by choice or via the structural realities of retirement, death, illness, and caregiving demands (Kulik, 2002). Spouses may grow increasingly and equally reliant on one another for their emotional well-being (Lang & Carstensen, 2002).

Limited Evidence for Partner Effects

Our main goal was to explore partner effects, or the extent to which one's own marital appraisals would be linked to their partner's momentary negative emotions. We found only limited evidence of such crossover effects; this is not likely due to multicollinearity, as the zero-order correlations between spouses' overall marital appraisals, support, and strain are modest ($r = .37, .27, \text{ and } .36$, respectively). Two statistically significant partner effects emerged. First, wives reported greater frustration when their husbands reported higher levels of marital strain. This may reflect the fact that married women, especially in birth cohorts such as those comprising the DUST sample, may be highly sensitive to and feel responsible for the emotional climate of one's marriage (Beach et al., 2003). Prior research on crossover effects has characterized wives as the "receivers" of negative emotion in marriage, where women are highly sensitive to the emotions expressed by their husbands, who are characterized as the "senders" of negative emotion (Larson & Almeida, 1999). However, due to the cross-sectional nature of the data, we cannot rule out reverse associations. Frustrated wives may take out their unhappiness on their

husbands, making them “feel tense” and intensifying their perceptions of marital strain (Baron et al., 2007).

Second, husbands reported significantly more frustration when their wives reported *higher* levels of marital support. At first blush, this finding is counterintuitive, and with the data at hand, we cannot confidently identify the underlying mechanism. However, the specific items comprising the support subscale suggest possible explanations to be explored in future research. Marital support encompasses one’s beliefs that they can open up to and share with their spouse. Husbands who are perceived as being supportive may simultaneously be frustrated by the circumstances generating his wife’s need for emotional support. Alternatively, providing emotional support may lead to frustration among husbands, if wives who regularly open up to their spouse are conveying negative and critical messages (Bloch et al., 2014) or if providing such support comes at the expense of other more enjoyable activities (Patrick et al., 2007). Frequently tending to their wives’ emotional needs may prevent some husbands from pursuing and fulfilling their other social, emotional, and practical goals, thus engendering feelings of frustration (Patrick et al., 2007). Recent conceptual writings on marital “suffocation” further suggest that even emotionally supportive marriages may undermine some aspects of well-being by weakening one’s autonomy and depriving spouses of other opportunities for goal fulfillment (Finkel, Hui, Carswell, & Larson, 2014; Patrick et al., 2007). Future research should explore more fully the correlates of frustration, especially given evidence that it is among the most widely experienced negative emotions in older adults’ daily lives (Carstensen et al., 2000; Chipperfield et al., 2003).

Limitations

DUST provides a unique opportunity to assess how marital quality matters for both partners’ ExWB. However, our study has several limitations. First, although DUST is embedded in a longitudinal panel, it is currently cross-sectional and we therefore cannot ascertain causal ordering; one’s current emotional state may bias both own and spouse’s marital appraisals (Schwarz & Strack, 1999). Persons with high levels of negative affect tend to offer more critical accounts of their marriages and are more likely to recall negative information about past experiences (Schwarz & Strack, 1999). Unhappy persons also are less capable of providing their spouses the love and support they desire or may instigate frequent marital conflicts (Iveniuk, Waite, Laumann, McClintock, Tiedt, 2014). Our concerns are partly allayed by a meta-analysis showing that the association between marital quality and well-being was stronger when well-being was the dependent variable (Proulx et al., 2007). Further pursuit of issues of causal ordering will be possible when the second wave of the DUST is released.

Second, DUST does not measure personality traits such as neuroticism or agreeableness. Such measures are potentially important contributors to both marital quality and ExWB (Iveniuk et al., 2014) and would enable a fuller assessment of

whether individuals have a “set point” or relatively stable level of negative emotion as a function of enduring traits (Diener, Lucas, & Scollon, 2006). Third, we focused on measures of emotional rather than instrumental support from spouses. Among older adults, who may have heightened need for health-enhancing instrumental support, both own and spouse’s perceptions of practical exchanges may be particularly relevant to one’s emotional well-being. Fourth, given the cross-sectional design of the DUST, we cannot assess the role of social selection. If high-quality marriages are more likely to remain intact and also are more likely to enhance ExWB, selectivity into long-term marriages may overstate these relationships. Future waves of DUST may allow fuller exploration of these issues.

Finally, because the DUST does not include an aggregated measure of negative affect, such as a depressive symptoms scale, we cannot directly compare how the associations between marital quality and emotional being differ using an experiential versus aggregated measure. However, a previous analysis of DUST found no evidence of crossover effects when the outcome of life satisfaction was considered (Carr et al., 2014), whereas our study found some evidence that spouse’s appraisals of marital quality are linked with one’s own momentary frustration. Life satisfaction is considered a relatively stable orientation that captures how people evaluate their lives relative to some standard, such as their expectation for how life should be (Schwarz & Strack, 1999). By contrast, ExWB appraises lives as individuals live them. The former is considered more responsive to enduring resources (e.g., education), whereas the latter is more responsive to immediate circumstances (Kahneman et al., 2004). One spouse’s level of marital (un)happiness may impel him or her to treat their partner in ways that have immediate, although possibly ephemeral, implications for their discrete emotions. Future studies, which directly compare the effects of later-life experiences on ExWB versus widely used aggregated measures, may help to identify the distinctive strengths and weakness of each type of measure for understanding later-life well-being.

Despite these limitations, our study reveals the complex role that both own and spouse’s marital appraisals play in the daily emotional lives of older adults. Although early work on emotional reactivity suggests that older adults are less likely to perceive or express negative emotions relative to younger persons, more contemporary work using momentary measures reveals that discrete and complex emotions such as frustration and worry are relatively common among older adults, although their sources and correlates are not well understood (Chipperfield et al., 2003). Our study is among the first we know of to show that both own and spouse’s marital quality appraisals are associated with older adults’ momentary frustration, sadness, and worry.

Future research on marriage and emotional well-being should consider both spouses’ perspectives on marital quality and should consider a range of both momentary and aggregated psychological outcomes that may carry implications for older adults’ health and well-being. We find frustration to be a particularly promising yet rarely studied outcome in marriage research. One of the most widely

replicated findings in experimental social psychology is that frustration, if persistent, may lead to aggressive thoughts or behaviors (Berkowitz, 1989). Spouses who experience high levels of frustration may be at risk of aggressing against their partners, especially if they have experienced dementia-related cognitive changes that may limit impulse control (Hall & O'Connor, 2004). Programs targeted toward older adults, especially spousal caregivers, should consider the couple's history of marital strain, support, and conflict and the implications for each spouse's well-being.

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