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Childhood Adversity, Daily Stress, and Marital Strain in Same-Sex and Different-Sex Marriages

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Abstract

Childhood adversity has enduring consequences for individuals throughout life, including increased reactivity to stress that may contribute to marital strain in adulthood. Past research on gendered experiences of heterosexual spouses raises questions about how the influence of childhood adversity might differ for men and women in same-sex marriages. We analyze dyadic diary data from 756 individuals in 106 male same-sex, 157 female same-sex, and 115 different-sex marriages to consider how childhood adversity moderates the association between daily stress and marital strain. Results suggest that the negative consequences of daily stress for marital strain are amplified by past childhood adversity with variation for men and women in same- and different-sex unions, such that women and those in same-sex marriages may experience some protection from the adverse consequences of childhood adversity.

Keywords

same-sex relationships; dyadic relationship/quality/satisfaction; family health; gender and family; life course

Substantial evidence suggests that adverse experiences in childhood (e.g., economic hardship, family violence, physical or sexual abuse, and exposure to alcohol/drug abuse) alter biological systems and increase psychological and physical reactivity to stress in ways that may undermine relationships in adulthood (Danese & McEwen, 2012; Miller, Chen, & Parker, 2011). The enduring consequences of childhood adversity may be especially salient in the context of marital relationships. Indeed, exposure to chronic stress and stressful life events in adulthood appears to contribute to both short-term and long-term declines in marital quality (e.g., Story & Bradbury, 2004), and one longitudinal study suggests that a history of childhood adversity hastens this stress-related marital quality decline over a 10-year period (Umberson, Williams, Powers, Liu, & Needham, 2005). The legacy of childhood

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adversity likely affects adults' daily lives in ways that accumulate over years to threaten their long-term relationship outcomes.

Because reactions to stressful events and environments are gendered, wherein women tend to appraise stress as more severe and engage in more emotion- and problem-focused responses than men (Schulz, Cowan, Cowan, & Brennan, 2004; Tamres, Janicki, & Helgeson, 2002), the impact of adverse childhood experiences on reactions to daily stress may also be gendered. However, this possibility has not been tested in prior research. We draw on the gender-as-relational perspective (Connell & Messerschmidt, 2005; Springer, Hankivsky, & Bates, 2012) to suggest that the moderating role of childhood adversity in the association between daily stress and marital strain not only differs for men and women but also depends on whether they are married to a man or a woman. In line with the gender-as-relational perspective, we focus on relational contexts differentiating four groups: men married to men, men married to women, women married to men, and women married to women (Umberson, Thomeer, Kroeger, Lodge, & Xu, 2015).

The present study considers how stress processes (e.g., stress experienced during childhood in addition to daily stress experienced in adulthood) influence marital strain in adulthood in potentially different ways for men and women in same-sex and different-sex marriages. Because negative dimensions of marriage are more strongly associated with health and well-being (Kiecolt-Glaser & Newton, 2001), we focus on marital strain as a measure of marital functioning. We posit that childhood adversity moderates the association of same-day as well as previous-day nonmarital stress with daily marital strain, and that these patterns vary for men and women in same-sex and different-sex marriages. The conceptual model is presented in Figure 1. We analyze 10 days of dyadic daily diary data from 756 individuals in 106 male same-sex, 157 female same-sex, and 115 different-sex marriages.

Background

The Moderating Role of Childhood Adversity

Early life course experiences, both positive and negative, reverberate into adulthood, shaping health and well-being for individuals throughout the life course (Pearlin, Schieman, Fazio, & Meersman, 2005; Sobolewski & Amato, 2005; Thoits, 2010). Childhood adversity gets under the skin, in part, by altering biological systems (e.g., nervous, endocrine, and immune systems; Danese & McEwen, 2012) that contribute to greater emotional, physical, and psychological vigilance and reactivity (Miller et al., 2011; Repetti, Taylor, & Seeman, 2002). The consequences of childhood adversity are especially salient in the context of close social relationships, perhaps especially in marital relationships, where greater vigilance and reactivity may strain the relationship. Although this process may unfold in other close relationships (e.g., cohabiting couples), marriage remains a distinctive institution with unique symbolic significance in American culture (Cherlin, 2004) that has numerous benefits for health and well-being (Carr & Springer, 2010). Most prior research on marital processes are based on studies of heterosexual couples; given the recent legal recognition of same-sex marriage in the United States, few studies have included same-sex married couples.

Childhood adversity is a unique stressor that may compound and amplify the effects of daily adulthood stressors on marital strain, and these patterns may differ in same-sex and different-sex unions (discussed below). If those who experienced more childhood adversity tend to be more reactive to daily stress in adulthood (Danese & McEwen, 2012; Miller et al., 2011), this may influence the ways that they interact with their spouses on more stressful days. Stress in adulthood—whether due to major life events (e.g., death of a loved one), chronic stressors (e.g., financial stress), or daily hassles (e.g., arranging child care)—imposes strain on marital relationships (Bradbury, Fincham, & Beach, 2000; Randall & Bodenmann, 2009; Story & Bradbury, 2004). Because childhood adversity influences reactivity to stress, the association between daily nonmarital stress and daily marital strain may be moderated by levels of childhood adversity. That is, even at similar levels of daily stress in adulthood, the consequences for marital strain may be more severe for those adults who experienced greater adversity during childhood.

Indeed, the vulnerability-stress-adaptation model (Cohan & Bradbury, 1997; Karney & Bradbury, 1995) posits that enduring vulnerabilities (e.g., childhood adversity) compromise adaptive processes (e.g., problem solving) that may ameliorate the negative effects of stressful events in adulthood on marital relationships. Nationally representative longitudinal data support this model and show that the adverse effect of stress on heterosexual marital relationships is more severe for respondents with greater childhood adversity (Umberson et al., 2005). Childhood adversity likely affects day-to-day stress processes and marital dynamics, yet the substantial literature that relies on diary studies to document the negative impact of daily stressors on marital interactions (e.g., DeLongis, Capreol, Hotzman, O'Brien, & Campbell, 2004; Neff & Karney, 2005; Story & Repetti, 2006) has not incorporated childhood experiences of adversity. Moreover, these patterns have not been tested with same-sex spouses even though sexual minorities are more likely to experience adversity in childhood compared with heterosexuals (Anderson & Blosnich, 2013).

Not only might childhood adversity compound the effects of daily stressors on marital strain in adulthood on the same day, but childhood adversity may also moderate lagged effects of daily stress from a previous day on marital strain the next day. Indeed, previous diary studies document the persistence of daily stress over several days (Bolger, DeLongis, Kessler, & Schilling, 1989; Repetti, 1989; Schulz et al., 2004). Thus, the effects of daily stress on marital strain may be ephemeral and dissipate by the next day or the effects of daily stress may be persistent and affect marital strain for several days. Because childhood adversity increases vigilance and reactivity (Miller et al., 2011; Repetti et al., 2002), greater childhood adversity may increase the salience of previous-day stressors and amplify the effects of previous-day stress on current-day marital strain. In contrast, those who experienced less childhood adversity may be more likely to “let it go” on days following high levels of stress. Although the persistent effects of daily stressors are well-documented, little is known about the role childhood adversity plays in shaping the lagged effects of daily stress. Thus, we consider the first hypothesis:

Hypothesis 1: Childhood adversity moderates the association between same-day and previous-day nonmarital stress and daily marital strain.

Childhood Adversity and the Gender-as-Relational Perspective

Childhood adversity may moderate the link between daily stress and marital strain in different ways for men and women. Social structural systems determine the meanings of masculinity and femininity and thus shape the behaviors of men and women (Springer et al., 2012). For example, masculinity emphasizes ignoring or hiding pain, discomfort, and emotions (Courtenay, 2000), whereas femininity emphasizes awareness and responsiveness to the needs of others as an extension of caregiving roles. In response to stress, men avoid thinking about the problem, whereas women may be more likely to seek social support, internalize the stress, and engage in emotion- and problem-focused coping strategies (Rosenfield & Mouzon, 2013; Tamres et al., 2002). In different-sex marriages, evidence suggests that, compared with husbands, wives tend to provide more effective support to their spouse on days their spouse is stressed (Neff & Karney, 2005). Indeed, gender differences in the experience of stress within heterosexual marriage are a major theme in the literature on marital dynamics (e.g., Neff & Karney, 2004; Schulz et al., 2004), but these studies raise questions about whether similar patterns would be observed in same-sex unions. The gender-as-relational perspective is ideally suited to addressing such questions.

The gender-as-relational perspective (Springer et al., 2012) posits that social interactions unfold differently depending on the gender of the individual, the gender of their spouse, and the gender composition of the couple (i.e., married to a same- or different-sex spouse). In this perspective, gender is relational and coconstructed by actors (Springer et al., 2012); thus, social interactions may unfold differently depending on the gender of the individual in relation to the gender of their spouse. As a result, a woman married to a woman may perform gender in a different way than a woman married to a man. Moreover, same-sex relationships are characterized by greater egalitarianism (Kurdek, 2004; Reczek & Umberson, 2012; Umberson & Kroeger, 2016), and this has implications for the way spouses cope with stress together. Based on these literatures, we suggest that the consequences of childhood adversity and daily stress in adulthood will be associated with marital strain in different ways for men and women depending on whether they are in a same-sex or different-sex marriage.

We use the gender-as-relational perspective to develop hypotheses about childhood adversity, daily stress, and marital strain experienced by men and women in same- and different-sex marriages. For example, if men and women respond to stress in different ways (i.e., men downplay stress and women are more responsive to stress), then men and women in different-sex marriages may experience added strain from taking divergent (gendered) reactions to stress. In contrast, a shared (gendered) response to stress may buffer same-sex couples from the amplified effects of daily stress on marital strain due to higher levels of childhood adversity. Another possibility is that sexual minority individuals differ in the effect that childhood adversity has on their daily marital functioning. Sexual minorities are more likely than heterosexuals to have a history of childhood adversity (Anderson & Blosnich, 2013), yet studies have found that same-sex and different-sex couples report similar levels of satisfaction and stability in their relationships (Kurdek, 2004; Manning, Brown, & Stykes, 2016). This may indicate that despite early childhood adversity or perhaps because of similar childhood experiences, same-sex couples are more resilient to the effects

of daily stressors on marital strain. Considering same-sex married couples in addition to different-sex married couples provides a unique research design that allows us to explore the gendered role of childhood adversity in daily marital dynamics. Thus, in this study we consider the second hypothesis:

Hypothesis 2: The pattern of results in Hypothesis 1 will vary for men and women in same- and different-sex marriages, such that same-sex couples experience more protection than different-sex couples from the adverse consequences of childhood adversity.

Method

Data and Sample

For the present study, we use dyadic data requiring the participation of both spouses in each marriage. The data come from a baseline survey as well as daily diary questionnaires completed for 10 days; all questionnaires were completed online. The baseline survey took about 45 minutes to complete and the diary questionnaire took 5 to 10 minutes daily to complete; the diary questionnaires were completed at the end of each day. Couples had to complete at least 6 of the 10 diary questionnaires in order to be included in the study, and 90% of participants completed all 10 days. Spouses completed all questionnaires separately. The analytic sample for this study includes both spouses in 378 couples ($n = 756$ individuals): 106 male same-sex couples, 157 female same-sex couples, and 115 different-sex couples. All participants were aged 35 to 65 years and legally married for a minimum of 3 years at the time of the study (2014–2015).

We collected our sample using two main techniques: (a) the recruitment of randomly selected couples via administrative data from Massachusetts and (b) the use of snowball sampling via referrals from participating couples. Convenience samples have limitations, but existing representative samples with diary data do not include same-sex couples. These data represent an important first step for studies comparing daily marital dynamics of same- and different-sex couples. The sample, although not representative of the U.S. population, was recruited in a systematic way to create comparable groups of same-sex and different-sex married couples. Participants were matched on age, relationship duration, and place of residence. Due to past legal restrictions on marriage for same-sex couples, we measure total relationship duration based on number of years cohabiting and married combined. Massachusetts was selected as the study site because it was the first U.S. state to legalize same-sex marriage in 2004, but couples who married in Massachusetts yet reside in other states were also invited to participate. Same-sex couples married between 2004 and 2012 and meeting the age requirements were identified through the Massachusetts Registry of Vital Records and invited to participate through letters mailed to their address. About 70% of same-sex couples were recruited in this way. Participating couples were also asked to refer both same-sex and different-sex married friends and family members who met the study requirements. The remaining 30% of same-sex couples were recruited via referrals. About 40% of different-sex couples were identified and recruited from publicly available city lists in Massachusetts that listed addresses and demographic information of all residents

in the city. The remaining 60% of different-sex couples were recruited through referrals from both same-sex and different-sex participants.

Measures

Marital Strain—Previous research shows that positive and negative dimensions of marital relationships are distinct (Bradbury et al., 2000) and negative dimensions such as marital strain are more strongly associated with health and well-being (Kiecolt-Glaser & Newton, 2001); thus, we focus on marital strain as our key measure of marital functioning. Marital strain was based on five questions from the daily diary questionnaire adapted from previous measures assessing strain in marital relationships (DeLongis et al., 2004; Neff & Karney, 2005). Respondents were asked, “Over the past 24 hours, how much did your spouse (a) let you down, (b) criticize you, (c) act inconsiderate toward you, (d) seem bothered or upset with you, and (e) make demands on you.” Each question had five response categories ranging from 1 (*not at all*) to 5 (*a great deal*). Responses to all questions were summed and standardized ($\alpha = .81$).

Daily Nonmarital Stress—The measure of nonmarital stress was based on nine questions from the daily diaries. These items were adapted from the Daily Inventory of Stressful Events (Almeida, 2005) and measure the occurrence of various stressors and the level of stress for each stressor. Respondents were asked whether four events happened over the past 24 hours (1 = “yes”): “I had an argument or disagreement with someone other than my spouse,” “Something else happened to me that most people would consider stressful,” “Housework and home demands,” and “Work demands.” If respondents reported exposure to any of these stressors, they were also asked how stressful these four events were; response options ranged from 1 (*not at all stressful*) to 5 (*extremely stressful*). Respondents also answered: “How much did social interactions with anyone other than your spouse make you feel irritated or annoyed” (five response options ranged from 1 [*not at all stressful*] to 5 [*extremely stressful*]). Responses to all nine questions were summed (range 0–26) and standardized ($\alpha = .71$).

Childhood Adversity—Childhood adversity was assessed in the baseline survey. Respondents were asked whether they had experienced 14 events or situations before age 18: family economic hardship, parents divorced, never knew father, death of a parent, at least one parent had a mental health problem, at least one parent had an alcohol or drug problem, violence in the family, physical or sexual abuse, bullied in school, suicidal thoughts or attempt, kicked out of parent’s or guardian’s home, drug and/or alcohol problem, rape, and life-threatening illness or injury. Responses were summed to create a measure of number of adverse events before age 18. Although childhood adversity items rely on retrospective recall and may be subject to bias, several studies report the reliability and validity of retrospective reports of these items in shaping adult outcomes (e.g., McLeod, 1991; Sobolewski & Amato, 2005). Respondents were also asked, “Overall, how stressful was your childhood” and response options included 1 = *not at all*, 2 = *slightly*, 3 = *somewhat*, 4 = *very*, and 5 = *extremely*. The childhood adversity variable used in analyses was the average of these two measures (number of adverse events and overall perception of stress in childhood). Thus, this measure (“childhood adversity”) captures both the number of events

that occurred in childhood and the level of perceived stress from those childhood experiences. In order to address the second research question, the continuous measure of childhood adversity is collapsed into three categories: low (lowest tercile), moderate (middle tercile), and high (upper tercile).

Covariates—We control for covariates that are likely associated with both daily stress and daily marital strain, including day of survey (day 1-day 10), age (in years), education (dummy variables for less than college degree, college degree, and postgraduate degree), and children in the household (1 = yes).

Analytic Strategy

To evaluate our hypotheses, we employ multilevel regression modeling with crossed random effects estimated via restricted maximum likelihood. Crossed random effects are estimated because partners and days are nested within couples but are “crossed” with one another (Bolger & Laurenceau, 2013). First, to evaluate whether daily stress interacts with childhood adversity to affect marital strain (Table 2), we estimate the following models:

Table 2, Model 1

$$\text{Level 1: } y_{ij}(\text{marital strain}) = \beta_0 + \beta_{ij} X_{ij1}(\text{daily stress}) + \beta_i X_{i2}(\text{childhood adversity}) + \beta_i X_{i3}(\text{actor is woman}) + \beta_i X_{i4}(\text{partner is woman}) + \beta_j X_{j5}(\text{time}) + \beta_i X_{i6}(\text{age}) + \beta_i X_{i7}(\text{education}) + \beta_i X_{i8}(\text{children}) + e_{ij}$$

$$\text{Level 2: } \beta_0 = \gamma_0 + P_{0i} + D_{0j}$$

Table 2, Model 2

$$\text{Level 1: } y_{ij}(\text{marital strain}) = \beta_0 + \beta_{ij} X_{ij1}(\text{daily stress}) + \beta_i X_{i2}(\text{childhood adversity}) + \beta_i X_{i3}(\text{actor is woman}) + \beta_i X_{i4}(\text{partner is woman}) + \beta_i X_{i5}(\text{covariates}) + e_{ij}$$

$$\text{Level 2: } \beta_0 = \gamma_0 + P_{0i} + D_{0j}$$

where Model 1 estimates the associations of daily stress, childhood diversity and covariates, and Model 2 adds an interaction between daily stress and childhood adversity. In both models, the Level 2 equation illustrates how the random effects are integrated into the intercept at Level 1—the intercept (β_0) is equal to the fixed subject specific intercept (γ_0) plus random effects for both partner (P_{0i}) and day (D_{0j}). We model the covariance structure for P_{0i} as exchangeable and the covariance structure for D_{0j} as autoregressive.

Next, to examine how childhood adversity moderates the association between daily stress and marital strain across individual gender and dyad gender (i.e., same- or different-sex), we extend our multilevel regression models with crossed random effects to employ the factorial method (West, Popp, & Kenny, 2008), an extension of the actor partner interdependence model (Cook & Kenny, 2005). The factorial method allows for the examination of three different “gender effects” in the model: actor (or respondent) gender, partner gender, and the interaction of actor and partner gender (or dyad gender). We estimate a series of interaction models leading up to a final model (equations below) with a three-way interaction for respondent gender, partner gender, and daily stress (Table 3). In Table 3, the first regression model tests the main effects for daily stress, respondent gender (“actor is woman”), and

partner gender (“partner is woman”). Model 2 adds the interaction of actor gender and partner gender (“actor is woman * partner is woman”) to test whether actor gender and/or partner gender effects differ if both spouses are women. Model 3 includes the interaction of respondent gender and daily stress. Model 4 includes the interaction for partner gender and daily stress. Model 5 includes all interactions from Models 2 to 4 in addition to the three-way interaction of respondent gender, partner gender, and daily stress. Therefore, the interaction terms in Models 3 and 4 show whether/how the association between daily stress and marital strain is conditioned by respondent gender and partner gender, respectively. The three-way interaction in Model 5 represents a test of differences by dyad gender (i.e., same-sex vs. different-sex). All models include controls for time, age, education, and children present in the household. The factorial method allows us to use regression estimates to predict values for four groups: men with men, men with women, women with men, and women with women. The Level 2 equation remains the same as above for each model, therefore we specify changes made to each equation specifically at Level 1, modeled separately for those having experienced low, moderate, and high child adversity:

Table 3

$$\text{Model 1: } y_{ijk}(\text{marital strain}) = \beta_0 + \beta_{ij} X_{ij1}(\text{daily stress}) + \beta_i X_{i2}(\text{actor is woman}) + \beta_i X_{i3}(\text{partner is woman}) + \beta_i X_{i4}(\text{covariates}) + e_{ij}$$

$$\text{Model 2: Model 1} + \beta_i X_{i5}(\text{actor is woman} * \text{partner is woman})$$

$$\text{Model 3: Model 1} + \beta_i X_{i6}(\text{actor is woman} * \text{daily stress})$$

$$\text{Model 4: Model 1} + \beta_i X_{i7}(\text{partner is woman} * \text{daily stress})$$

$$\text{Model 5: Model 1} + \beta_i X_{i5}(\text{actor is woman} * \text{partner is woman}) + \beta_i X_{i6}(\text{actor is woman} * \text{daily stress}) + \beta_i X_{i7}(\text{partner is woman} * \text{daily stress}) + \beta_i X_{i8}(\text{actor is woman} * \text{partner is woman} * \text{daily stress})$$

Results

Descriptive Results

We use Wald tests to report statistical differences in our key measures of interest across four groups: men with men, men with women, women with men, and women with women. Descriptive results in Table 1 show that men in different-sex marriages reported more marital strain than both men and women in same-sex marriages. Women in different-sex marriages reported more strain than men in same-sex marriages (but not women in same-sex marriages). Women reported significantly higher levels of daily nonmarital stress compared with men, with the exception of no difference between women with women compared with men with women. Same-sex spouses reported significantly higher levels of mean childhood adversity than different-sex spouses. We now test our hypotheses using the factorial method via multilevel modeling.

The Moderating Role of Childhood Adversity

We first considered whether childhood adversity moderates the association between same-day and previous-day nonmarital stress and daily marital strain (Table 2). Multilevel

regression results in Model 1 of Panel A show positive and significant main effects for both same-day stress ($p < .001$) and childhood adversity ($p < .05$), indicating additive effects of childhood adversity and daily stress for marital strain. The significant and positive main effect for previous-day stress ($p < .01$) in Model 1 of Panel B confirms that daily stress persisted to influence marital strain on the following day. Higher levels of same-day stress, previous-day stress, and childhood adversity are associated with higher levels of daily marital strain. Model 2 in Panel A of Table 2 shows a positive and significant interaction between same-day nonmarital stress and childhood adversity ($p < .05$). Thus, higher levels of childhood adversity amplify the association between daily nonmarital stress and marital strain, net of covariates. However, the nonsignificant interaction between previous-day stress and childhood adversity Model 2 of Panel B suggests that these results do not hold when considering previous-day stress. Overall, the results provide partial support for Hypothesis 1 that individuals with more childhood adversity experience more marital strain in response to same-day stress.

Gender Differences in the Moderating Role of Childhood Adversity

Next, we examined whether the moderating effect of childhood adversity varies for men and women in same-sex and different-sex marriages. Because the interaction between previous-day stress and childhood adversity was not significant (Table 2, Panel B, Model 2), we present the results for same-day stress. First, we stratified the sample by low, moderate, and high childhood adversity and regressed daily marital strain on daily nonmarital stress. Next, we examined how the association between daily stress and marital strain is moderated by actor gender (Model 3), partner gender (Model 4), and the interaction of actor gender and partner gender (Model 5) in a series of models leading up to a final three-way interaction. Results in Model 1 of Panels A to C in Table 3 show that daily stress is predictive of greater marital strain for those with low, moderate, and high levels of childhood adversity ($p < .001$).

Differences by gender and gender composition of the couple were evident for respondents with moderate levels of childhood adversity only as evidenced by the significant interaction terms in Model 5 of Panel B. In Model 5, we consider how actor and partner gender interact to determine the strength of the association between daily stress and marital. With the three-way interaction included in Model 5, the reference group becomes men married to men and is represented by the main effect for daily stress. Thus, for respondents with moderate levels of childhood adversity (Table 3, Panel B), the association between daily stress and marital strain was not significant for men married to men ($b = .01$; $p = .82$). The interaction between actor gender and daily stress represents the effect for women married to men and the nonsignificant interaction indicates that the association between daily stress and marital strain was not significantly different for women married to men compared with men married to men ($b = .01 + .08 = .09$; $p < .10$). The interaction between partner gender and daily stress represents the effect for men married to women and the significant and positive interaction between daily stress and partner gender indicates that, compared with men married to men, the association between stress and marital strain was significantly greater for men married to women ($b = .01 + .26 = .27$; $p < .001$). The significant and negative three-way interaction in Model 5 indicates that the association between daily stress and marital strain varies not

simply by respondent gender or partner gender, but by the interaction of respondent gender with partner gender (a dyad gender effect). Compared with men married to men, the association between daily stress and marital strain was not significantly different for women married to women ($b = .01 + .26 + .08 + -.29 = .06$; $p < .05$). Additional postestimation chi-square tests of equality confirm that the association between stress and marital strain is stronger for men married to women compared with women married to men and women married to women. Thus, respondent and partner gender interact with daily stress such that being married to a woman only increases the consequences of daily stress on marital strain if the actor is a man. A Chow test confirms that the interaction terms for actor gender, partner gender, and daily stress are significantly different across childhood adversity terciles.

We estimated predicted values to illustrate these results at moderate levels of childhood adversity separately for four groups in Figure 2 (from Table 3, Panel B, Model 5): men with men, men with women, women with men, and women with women. Results support Hypothesis 2 at moderate levels of childhood adversity, showing that the moderating role of childhood adversity unfolds in gendered ways, such that the association between daily stress and marital strain is strongest for men with women.

Discussion

Adverse experiences in childhood can be scarring, with effects that continue to reverberate throughout the life course (Pearlin et al., 2005), perhaps particularly in the context of close relationships (Miller et al., 2011; Repetti et al., 2002). We draw on the gender-as-relational theoretical perspective (Connell & Messerschmidt, 2005; Springer et al., 2012) to consider how stress (e.g., stress experienced in childhood and adulthood) is associated with marital dynamics in adulthood in a sample of midlife gay, lesbian, and heterosexual spouses. The present study reveals how childhood adversity may amplify the impact of nonmarital stress on marital strain in different ways for men and women in same-sex and different-sex marriages. We highlight two important themes that emerge from these findings.

Our first major theme concerns the lasting consequences of childhood adversity for marital strain in adulthood. Previous longitudinal research following spouses over many years suggests that, in heterosexual couples, childhood adversity hastens the decline in marital quality due to stress (Umberson et al., 2005). In this study, we take a different approach to consider the daily interactions between spouses that are likely to have cumulative effects on marital strain over many years. We consider daily fluctuation in levels of nonmarital stress in relation to daily marital strain and find that childhood adversity seems to amplify the consequences of daily stress for daily marital strain. Indeed, we find that childhood adversity exacerbates the impact of same-day nonmarital stress on marital strain. Diary data are well-suited to capturing daily fluctuations within families (Repetti, Reynolds, & Sears, 2015), yet the substantial daily diary literature documenting the negative impact of daily stressors on marital interactions has not included childhood adversity as a unique life course stressor that extends into adulthood (e.g., DeLongis et al., 2004; Neff & Karney, 2005; Story & Repetti, 2006).

Our second major theme points to the importance of including both same-sex and different-sex married couples in research designs in order to untangle gender differences in marital dynamics. Indeed, gender differences in the experience of stress within marriage are a major theme in the literature on marital dynamics (e.g., Schulz et al., 2004), yet little is known about gender differences in the moderating role of childhood adversity, especially in same-sex couples. We find that, at moderate levels of childhood adversity, the association between same-day stress and marital strain is weaker for same-sex spouses and women married to men. The association between daily stress and marital strain is stronger for men married to women at moderate levels of childhood adversity; thus, being in a same-sex versus different-sex marriage seems to matter for men but not for women. Several possible explanations may shed light on this finding.

First, the juxtaposition of similar reports of relationship satisfaction for same-sex and different-sex couples (Kurdek, 2004; Manning et al., 2016) despite higher levels of childhood adversity among sexual minorities (Anderson & Blosnich, 2013) points to the possibility of greater resilience for same-sex couples. Childhood adversity may be more common for spouses in same-sex couples, and the shared understanding of childhood adversity may be a couple-level strength for these couples. Second, evidence that the relationship dynamics of same-sex couples are characterized by greater egalitarianism and less emphasis on power dynamics with respect to health (Reczek & Umberson, 2012) and intimacy (Umberson, Thomeer, & Lodge, 2015) suggests that same-sex couples may interact in ways that are less likely to contribute to marital strain in response to childhood adversity and ongoing stress in adulthood. Finally, the gender-as-relational perspective (Springer et al., 2012) suggests that the interaction of childhood adversity and stress in adulthood may differ for men and women depending on whether they are married to a man or a woman. For example, if men tend to downplay and ignore stress and women tend to be more aware of and responsive to stress, then men and women in different-sex marriages may experience more marital strain due to differences in the way they approach and cope with stress. Indeed, a recent qualitative study suggests that because men and women construct illness in gendered ways, same-sex couples are more likely to have similar perceptions of illness and are less likely to experience marital stress during illness episodes (Umberson, Thomeer, Reczek, & Donnelly, 2016).

The present study extends our understanding of how childhood adversity may amplify the impact of daily stress on marital strain in different ways for men and women in same-sex and different-sex unions. However, this study is not without limitations. First, because childhood adversity diminishes the ability to form and sustain close relationships (Miller et al., 2011), individuals with the highest levels of childhood adversity may be selected out of marriage, or those who remain married may be uniquely and qualitatively different from those who do not marry. However, we would expect this kind of selection to lead to an underestimation of the impact of childhood adversity on the association between daily stress and marital strain. Second, we use subjective evaluations of stress and a retrospective measure of childhood adversity, which may bias our estimates. Prospective studies following respondents from childhood into adulthood would be ideally suited for less biased measures of childhood adversity. Third, snowball sampling was used to recruit some of the participating couples, which may lead to non independent measures; however, the data in

this study represent an important first step for studies comparing same- and different-sex spouses. Nationally representative data sets should oversample sexual minority individuals and incorporate better ways to identify same-sex couples; ideally these data sets would include dyadic and diary components. Finally, we do not examine the mechanisms that contribute to gender and gender composition differences in marital interactions. Future research should explore the underlying mechanisms that may be protective for couples (e.g., dyadic coping), possible differences in these mechanisms by gender and gender composition of couples, and how these mechanisms reduce the impact of daily stress on marital strain for those who have experienced childhood adversity.

Overall, our findings provide evidence that gender differences are important when considering how stress processes (i.e., from childhood and adulthood) influence marital strain in adulthood, although the role of gender depends on whether marriages include same-sex or different-sex spouses. The lasting influence of childhood adversity for marital interactions demonstrates the need to minimize experiences of childhood adversity and/or provide support to those individuals who have experienced adversity, a key for the development of policy and clinical strategies. The inclusion of same-sex spouses in research on marital dynamics creates a new frontier for understanding gendered marital dynamics by looking at the relational contexts of gender in same-sex and different-sex marriages. Understanding the gendered marital dynamics can be used to help all couples cope with stress, an important endeavor in light of the negative health consequences of stress and marital strain (Kiecolt-Glaser & Newton, 2001).

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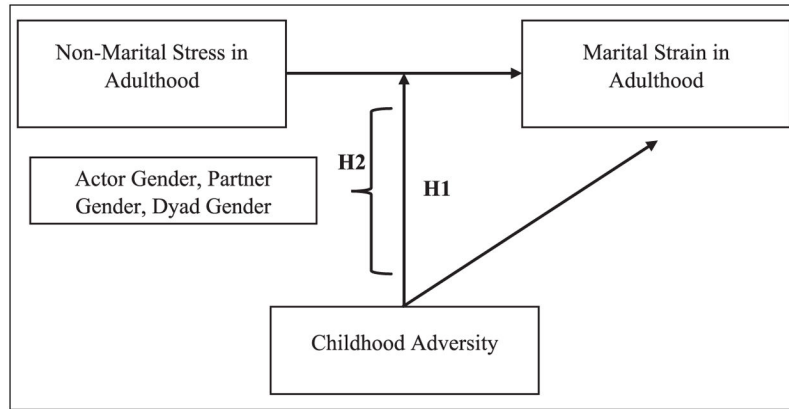


Figure 1.
Conceptual model.

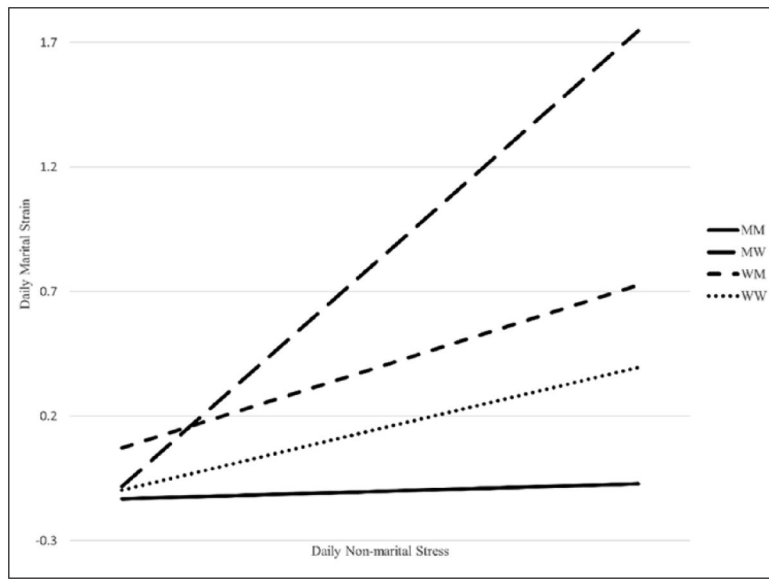


Figure 2. Predicted scores of daily nonmarital stress on marital strain at moderate childhood adversity (from Table 3, Panel B).
Note. MM = men with men; MW = men with women; WM = women with men; WW = women with women.

Table 1
 Descriptive Data for Sample, by Sex Composition of the Couple ($N = 756$ individuals; 378 couples).

	Total sample	Men with men	Men with women	Women with men	Women with women
<i>N</i>	756	212	115	115	314
Age (<i>M</i>)	48.2	49.7	46.5	45	49
Relationship duration (<i>M</i>)	15.1	16.3	15.9	15.9	13.7
Education (%)					
Some college or less	19.5	19.8	30.1	24.5	13.6
College degree	29.7	31.3	32.3	26.3	28.9
Postgraduate	50.1	49	37.6	49.2	57.5
Children in household (% , yes)	42	12.7	71.1	71.1	40.4
Daily marital strain (<i>M</i>)	6.5	6.3	7.0	6.5	6.4
Daily nonmarital stress (<i>M</i>)	5.0	4.8	4.9	5.3	5.1
Number of adverse events <18 (<i>M</i>)	2.1	2.3	1.8	1.8	2.3
How stressful childhood (%)					
Not at all	18.1	9.5	31.9	21.6	17.9
Slightly	30.6	33.5	31.8	33.6	27.0
Somewhat	25.5	26.4	16.5	23.7	29.0
Very	17.7	21.2	14.2	16.6	17.1
Extremely	8.0	9.5	6.5	4.4	9.0
Childhood adversity (%)					
Low	39.1	30.3	53.9	48.4	36.2
Moderate	27.1	34.4	21.0	22.0	26.2
High	33.9	35.2	25.2	29.7	37.6

Table 2

Estimates From Multilevel Regression Models Testing Daily Nonmarital Stress on Daily Marital Strain by Childhood Adversity ($N = 756$ individuals; 378 couples).

	Panel A: Same-day stress		Panel B: Previous-day stress	
	Model 1	Model 2	Model 1	Model 2
Daily stress	0.07 ^{***} (0.01)	0.06 ^{***} (0.01)	0.04 ^{**} (0.01)	0.04 ^{**} (0.01)
Childhood adversity scale	0.05 [*] (0.02)	0.05 [*] (0.02)	0.05 ^{**} (0.02)	0.05 ^{**} (0.02)
Daily stress * childhood adversity		0.03 [*] (0.01)		0.01 (0.01)
Actor is woman	-0.09 [*] (0.04)	-0.09 [*] (0.04)	-0.08 [†] (0.04)	-0.08 [†] (0.04)
Partner is woman	0.07 [†] (0.04)	0.08 [†] (0.04)	0.06 (0.04)	0.06 (0.04)
Time	-0.01 [*] (0.01)	-0.01 [*] (0.01)	-0.01 (0.01)	-0.01 (0.01)
Age	0.00 (0.01)	0.00 (0.01)	0.01 (0.01)	0.01 (0.01)
College degree	-0.08 (0.06)	-0.08 (0.06)	-0.07 (0.06)	-0.07 (0.06)
Postgraduate degree	-0.06 (0.06)	-0.06 (0.06)	-0.06 (0.06)	-0.06 (0.06)
Children in household	0.22 ^{***} (0.06)	0.22 ^{***} (0.06)	0.22 ^{***} (0.06)	0.22 ^{***} (0.06)
Constant	-0.03 (0.16)	-0.03 (0.16)	-0.08 (0.17)	-0.08 (0.17)
Random-effects parameters				
Partner variance	0.22	0.22	0.23	0.23
Partner covariance	0.13	0.13	0.15	0.15
Daily variance	0.17	0.17	0.15	0.15
Residual variance	0.75	0.75	0.74	0.74

[†] $p < .10$.

^{*} $p < .05$.

^{**} $p < .01$.

^{***} $p < .001$.

Table 3

Estimates From Multilevel Regression Models Testing Daily Nonmarital Stress on Daily Marital Strain by Levels of Childhood Adversity ($N = 756$ individuals; 378 couples).

	Model 1	Model 2	Model 3	Model 4	Model 5
<i>Panel A: Low childhood adversity</i>					
Daily stress					
Actor is woman	0.05* (0.02)	0.05* (0.02)	0.04 (0.03)	0.07* (0.03)	0.06 (0.05)
Partner is woman	-0.15* (0.06)	-0.08 (0.11)	-0.14* (0.06)	-0.15* (0.06)	-0.08 (0.11)
Actor woman * partner woman	0.09 (0.06)	0.15 (0.10)	0.09 (0.06)	0.09 (0.06)	0.15 (0.10)
Actor woman * daily stress		-0.11 (0.15)			-0.11 (0.15)
Partner woman * daily stress			0.02 (0.04)		0.01 (0.06)
Actor woman * partner woman * daily stress				-0.03 (0.04)	-0.04 (0.07)
Constant	0.10 (0.23)	0.08 (0.23)	0.11 (0.23)	0.10 (0.23)	0.09 (0.23)
<i>Panel B: Moderate childhood adversity</i>					
Daily stress					
Actor is woman	0.08*** (0.02)	0.08*** (0.02)	0.08* (0.04)	0.04 (0.03)	0.01 (0.04)
Partner is woman	-0.03 (0.10)	0.18 (0.15)	-0.03 (0.10)	-0.03 (0.10)	0.18 (0.15)
Actor woman * partner woman	0.05 (0.10)	0.29 [†] (0.16)	0.05 (0.10)	0.05 (0.10)	0.26 [†] (0.15)
Actor woman * daily stress		-0.41 [†] (0.23)			-0.39 [†] (0.22)
Partner woman * daily stress			-0.01 (0.05)	0.07 (0.05)	0.08 (0.04)
Actor woman * partner woman * daily stress					0.26** (0.07)
Constant	0.06 (0.32)	-0.01 (0.32)	0.06 (0.32)	0.07 (0.32)	0.02 (0.32)
<i>Panel C: High childhood adversity</i>					
Daily stress					
Actor is woman	0.08*** (0.02)	0.08*** (0.02)	0.06 [†] (0.03)	0.07* (0.03)	0.05 (0.04)
Partner is woman	-0.04 (0.09)	-0.04 (0.13)	-0.05 (0.09)	-0.04 (0.09)	-0.06 (0.13)
Actor woman * partner woman	0.02 (0.09)	0.02 (0.14)	0.02 (0.09)	0.01 (0.09)	0.01 (0.14)
Actor woman * daily stress		0.00 (0.20)			0.01 (0.20)
Partner woman * daily stress			(0.04)		0.05 (0.06)
Actor woman * partner woman * daily stress				0.01 (0.04)	0.01 (0.07)

	Model 1	Model 2	Model 3	Model 4	Model 5
Actor woman * partner woman * daily stress					-0.03 (0.09)
Constant	-0.17 (0.28)	-0.17 (0.28)	-0.18 (0.27)	-0.17 (0.28)	-0.17 (0.28)

Note. Standard error are given in parenthesis. Controls are time, age, education, and children in household (omitted from the table).

[†] $p < .10$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.