



Whose parenting stress is more vulnerable to marital dissatisfaction? A within-couple approach examining gender, cognitive reappraisal, and parental identity

PATTY X. KUO* 
VICTORIA J. JOHNSON*

Conflict and tension in the couple relationship transfers to the parent–child relationship, amplifying the stress parents experience while parenting young children. Pinpointing moderating and individual-level factors that exist in this spillover process may identify both couple and individual areas where spillover might be mitigated. This study used a within-couple approach to test for gender differences in marital-to-parenting spillover and to examine the moderating roles of gender, parental identity, and the emotion regulation strategy cognitive reappraisal in the linkages between marital–parenting spillover. From a larger study of parenting experiences, 96 mother–father couples of young children (mean age = 3.22 years) reported on measures of marital satisfaction, cognitive reappraisal, parenting identity, and parenting stress. Using path model comparisons, we found more similarities than differences between mothers and fathers and, contrary to the hypothesis, that mothers experienced greater spillover between marital satisfaction and parental distress than fathers. Results differed between outcome measures, suggesting that parents experience more spillover from marital satisfaction to parenting in the context of parental distress than in dysfunctional interactions with their child. Importantly, we found that higher parental identity strengthened marital-to-parenting spillover for mothers in contrast to expectations based on theoretical assumptions, whereas cognitive reappraisal weakened marital-to-parenting spillover, supporting the broader emotion regulation literature. These results signify the importance of situating the marriage to parenting transfer in the context of affective experiences and intensified parenting expectations, wherein flexibility in role identity may help alleviate parenting stress.

Keywords: Marriage; Parenting Stress; Emotion Regulation; Parental Identity; Gender

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When satisfaction wanes in the marital relationship, parent–child relationships also suffer (Bowen, 1978). For instance, negative interactions with one’s spouse can challenge a parent’s ability to respond positively and appropriately to their child (Gao, Du, Davies, & Cummings, 2019). This transfer of emotions and behavior, referred to as “spillover” (Almeida, Wethington, & Chandler, 1999), between marital relationships and parent–child relationships has been well documented (Erel & Burman, 1995; Gao &

*Department of Child, Youth and Family Studies, University of Nebraska-Lincoln, Lincoln, NE, USA.

Correspondence concerning this article can be addressed to Patty X. Kuo, Department of Child, Youth and Family Studies, University of Nebraska-Lincoln, Lincoln, NE. E-mail: pkuo2@unl.edu.

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Cummings, 2019; Gao et al., 2019; Stevenson, Volling, & Gonzalez, 2018). Although spillover may occur as a transfer from marital relationships to parenting or vice versa (Kwok, Cheng, Chow, & Ling, 2015; Zemp, Nussbeck, Cummings, & Bodenmann, 2017), accumulated evidence suggests that spillover from marital to parenting subsystems is more likely than the reverse (Gao et al., 2019; Kouros, Papp, Goeke-Morey, & Cummings, 2014). According to family systems theory (Bowen, 1978; Cox & Paley, 2003), the marital relationship is the epicenter of the family from which all other relationships derive their dynamics. For example, increased marital satisfaction is linked with less parenting stress (Grych, 2002). Moderators of marital-to-parenting spillover, however, have been less explored. Examining individual-level factors that play a moderating role in this link between marriage and parenting may provide a more holistic view of the spillover process. This paper focuses on the interlinkages between marital and parenting systems (i.e., spillover) in terms of marital satisfaction and parenting stress (parental distress/parent-child dysfunction), and moderating factors of these marital-parenting associations including gender, parental identity, and the emotion regulation strategy, cognitive reappraisal.

Family Stress

Because this study examines marital-parenting spillover in terms of parental stress within couples, it is important to embed this in the larger context of family stress theory. Congruent with family systems theory (Bowen, 1978; Cox & Paley, 2003), stress experienced by an individual in the family does not occur in isolation but involves an aggregate of relationships and shared experiences (Bush, Price, Price, & McKenry, 2017). Family stress can be experienced differently by individual members, accumulate over time, generate from daily hassles, and be provoked by a change in any aspect of the family system, disrupting regular routines and interactions that maintain family stability (Bush et al., 2017). This study examined parenting stress from the dimensions of parenting distress, a parent's overall sense of fulfillment (or lack thereof) as a parent, and parent-child dysfunctional interaction, or how synchronized the parent-child relationship is perceived to be.

Marital Satisfaction & Parenting Stress: The Role of Gender?

Some scholarly research using similar populations as the sample in this study has indicated no significant gender differences in marital satisfaction (Jackson, Miller, Oka, & Henry, 2014) or parenting stress between mothers and fathers of young children (Crnic & Booth, 1991; Crnic & Low, 2002; Solmeyer & Feinberg, 2011), but others have found gender differences (e.g., Falconier, Jackson, Hilpert, & Bodenmann, 2015). However, there is debate as to whether mothers or fathers experience more marital-to-parenting spillover. An older review (Coiro & Emery, 1998) and recent studies have observed that fathers experience greater spillover (Gao & Cummings, 2019; Kopystynska, Barnett, & Curran, 2019; Stroud, Durbin, Wilson, & Mendelsohn, 2011). In the current study, we use a within-couple approach to test whether there are gender differences in marital-parenting spillover and whether gender differences are manifested in the moderators of marital-parenting associations.

Parental Identity as a Moderator of Marital-to-Parenting Spillover?

Ingrained gender roles within society and views that parenting is "women's work" (Bianchi & Milkie, 2010) have led some scholars to speculate that the differences in degree of spillover between mothers and fathers are due to how mothers and fathers experience their individual parenting roles based on gender. According to the father vulnerability hypothesis (Cummings, Goeke-Morey, & Raymond, 2004; Cummings, Merrilees, &

George, 2010), fathers are more susceptible to spillover due to having a weaker parental identity compared to mothers. From this purview, mothers are likely to have stronger parental identities than fathers and thus experience less marital-to-parenting spillover. However, this assumption has not been directly tested in the literature. Further, this hypothesis fails to address individual differences among mothers and fathers in parenting identity. Individuals with a stronger parenting identity would be more motivated to invest in and protect their parenting role, regardless of their gender (Gaunt & Scott, 2014; Stryker, 2008). Indeed, centrality of parenting identity leads to greater involvement in child-care in both mothers and fathers (Gaunt & Scott, 2014), and having stronger parenting identity predicts lower levels of parenting stress in fathers (Knoester & Petts, 2017). Alternatively, one might consider whether having a heightened parenting identity might intersect with marital issues in terms of role expectations and support. For example, mothers who overemphasize their parental identity may have difficulty relinquishing caregiving responsibilities because they acquire sought-after validation from their caregiving role (Allen & Hawkins, 1999). Certainly, parental identity development does not happen within a vacuum. Parental identity development and fluctuation is deeply embedded with marital strain, particularly with regard to whether the marital lifestyle supports idealized roles (Huston & Holmes, 2004). Although marital intimacy has been found to promote fathers' parental identity and involvement (Bradford & Hawkins, 2006), it is unclear whether parental identity actually plays a moderating role in marital-to-parenting spillover, despite it being hypothesized as the underlying factor that explains father vulnerability (Cummings et al. 2004, 2010). To address this gap, we compare differences in parental identity between mothers and fathers and examine whether parental identity moderates associations between marital satisfaction and parenting stress for mothers and fathers.

Emotion Regulation: The Affective Base of Spillover

Spillover assumes the transfer of affect and behavior from one setting to another (Almeida et al., 1999). One way that this transfer of emotions and related behavior might be controlled is through emotion regulation (Gross & John, 2003). Although multiple emotion regulation strategies have been identified in the literature (Aldao, Nolen-Hoeksema, & Schweizer, 2010), cognitive reappraisal has been singled out as particularly effective compared to other emotion regulation strategies, such as suppression. Cognitive reappraisal involves reinterpreting emotional information as neutral or positive, which ultimately prevents or reduces negative mood about a situation (Gross & John, 2003; Nolen-Hoeksema, 2012). In terms of coping with family stress, cognitive reappraisal is an important strategy for reframing stressful situations more positively to decrease emotional strain, support family emotional and social functioning, and clarify circumstances in more manageable terms (Bush et al., 2017). A wide body of literature has compared emotion regulation abilities in women and men and has found that women consistently use more emotion regulation strategies than men, including cognitive reappraisal (Nolen-Hoeksema, 2012; Tamres, Janicki, & Helgeson, 2002). In light of the fact that women and men tend to experience similar levels of emotionality on a day-to-day basis (Nolen-Hoeksema, 2012), a greater degree of affective spillover may be expected for fathers compared to mothers. Indeed, some scholars have contended that men are more likely to be sensitive to stresses in the marriage due to emotional reasons, specifically, their lower tolerance for prolonged negative emotions (Bloch, Haase, & Levenson, 2014; Levenson, Carstensen, & Gottman, 1994). Thus, average gender-based differences in emotion regulation may actually underlie the phenomenon of fathers experiencing greater spillover than mothers (Cummings et al., 2004, 2010). Despite average gender-based differences in use of cognitive

reappraisal, it is still an effective strategy for emotion regulation regardless of gender (Gross & John, 2003), and thus, both mothers and fathers who use cognitive reappraisal are potentially less likely to experience spillover. In this paper, we examine group-level differences in cognitive reappraisal, but, more importantly, test cognitive reappraisal as a moderator of linkages between marital satisfaction and parenting stress for mothers and fathers.

Present Study Summary

In this study, we explored whether marital-to-parenting spillover differs between mothers and fathers using a within-couple approach. Our approach and hypotheses were guided by gender-based theories on parenting identity (Cummings et al., 2004, 2010) and emotion regulation, specifically, cognitive reappraisal (Nolen-Hoeksema, 2012). Following previous findings, we expected that mothers would report higher levels of parenting identity and cognitive reappraisal than fathers. However, the main purpose of the current study was to investigate parental identity and cognitive reappraisal as moderators of the association between marital satisfaction and parenting stress (i.e., parental distress and parent-child dysfunction). As such, we had three core research questions.

Based on the father vulnerability hypothesis (Cummings et al., 2004, 2010), we hypothesized that marital-to-parenting spillover would differ based on whether it is experienced by mothers or fathers: Fathers will experience stronger linkages between marital satisfaction and parenting distress and parent-child dysfunctional interaction. A core untested component of the father vulnerability hypothesis is that fathers are more vulnerable due to their generally weaker parental identity (relative to mothers). However, this theory does not account for cases when fathers do have strong parental identities. *Ipso facto*, then any individual with a strong parental identity (regardless of gender) should be protected against spillover. Thus, our second research question addressed parental identity: Will parents with a strong parental identity, regardless of their gender, have weaker associations between marital satisfaction and parenting distress and parent-child dysfunctional interaction? Finally, the father vulnerability hypothesis does not address other potential gendered reasons for men's heightened spillover processes relative to women's. Instead of stronger parental identity component being the sole protective factor, we considered the gendered use of effective emotion regulation strategies as the reason for father vulnerability. On average, women tend to use more cognitive reappraisal as an emotion regulation strategy than men (Nolen-Hoeksema, 2012). The average use may be gendered, but here we are considering individual differences in which some men use more cognitive reappraisal strategies than other men. Given the effectiveness of cognitive reappraisal on improving mood and relationships (Brockman, Ciarrochi, Parker, & Kashdan, 2017), we see no reason why the benefits of cognitive reappraisal should only be limited to women. Thus, our last research question addressed cognitive reappraisal: Does cognitive reappraisal attenuate the associations between marital satisfaction and parenting distress and parent-child dysfunction? Finally, we considered empirically relevant demographic variables to both marital satisfaction and parenting stress (for reviews, see Bradbury, Fincham, & Beach, 2000; Deater-Deckard, 2004; Louie, Cromer, & Berry, 2017; Twenge, Campbell, & Foster, 2003) for inclusion in our analyses.

METHOD

This study used data from a larger online study of daily stressors in parenting young children. The study included two waves of data collection: baseline surveys followed by ten daily diary entries over a two-week period. The current report uses the baseline survey

data. Eligibility criteria included cohabitating opposite-sex couples (both partners age 18+) residing in the United States who had at least one child under 6 years of age living with the couple. Participants were recruited via targeted social media ads and through word of mouth and snowball methods. This study received ethical approval from University of Notre Dame's Institutional Review Board.

Participants

One hundred couples were recruited to participate in the study, and our report consists of the participants with full or partial data. Participants were 198 parents total (100 mothers; 98 fathers; 96 mother–father couples). All participants were members of a couple with at least one child under the age of 6 living with them at home. Nonrespondents in our data come from when one member of the enrolled couple did not complete the survey. The mean age of children living with the couple was 3.22 years ($SD = 2.33$), and families reported having 1–7 children living at home with the couple ($M = 2.24$ $SD = 1.31$). Most participants reported being married (89.7%), with an average of 9.89 years in the relationship ($SD = 4.87$). Participants' reported household income ranged from less than \$19,999 to more than \$120,000. The modal household income category was \$120,000 or more (20.6%). Participants were highly educated: 76% of mothers and 70.4% of fathers reported earning a bachelor's degree or higher. The majority of mothers (87.1%) and fathers (89.1%) identified as White, with five mothers and two fathers identified as Hispanic. Participants reported living all over the United States, 13 couples from the Northeast, 62 couples from the Midwest, 17 from the South, and 5 from the West. Most fathers reported working full time (84.7%), and remaining fathers reported working part time ($N = 4$), being homemakers ($N = 3$), unemployed ($N = 4$), or other ($N = 4$; e.g., "graduate student"). Mothers' work status was more variable within the sample: 43.4% of mothers reported being homemakers, 36.4% reported working full time, and 15.2% reported working part time. Two mothers reported being unemployed, and three mothers chose "other" to describe their employment status (e.g., "on maternity leave").

Measures

Parenting Stress

Two facets of parenting stress were included in this paper. Parenting distress and parent–child dysfunctional interaction were measured using the *Parenting Stress Index-Short Form* (Abidin, 1990), a scale designed to measure parental stress across three subscales from 36 items. Prior research has found the PSI-SF to be internally consistent among samples of parents with young children (Whiteside-Mansell et al., 2007). Two subscales were used for the analyses, each consisting of 12 items rated on a Likert scale from 1 = *strongly disagree* to 5 = *strongly agree*. The *parental distress* subscale captures the overall sense, or lack, of fulfillment the individual may feel in their role as a parent (e.g., feeling trapped, alone, unable to handle things well, or unable to take part in new or enjoyable experiences; $\alpha = .84$ mothers, $\alpha = .82$ fathers), whereas the *parent–child dysfunctional interaction* subscale captures the lack of closeness or synchrony a parent may perceive with their child (e.g., child does not respond positively to parent as expected or behave as expected; $\alpha = .84$ mothers, $\alpha = .77$ fathers). Mean scores were calculated for each subscale and used in the analyses, with higher scores indicating higher levels of distress and dysfunction, respectively.

Marital satisfaction

Marital satisfaction was assessed using the *Kansas Marital Satisfaction Scale* (Schumm et al., 1986), a 3-item measure capturing satisfaction with spouse, marriage,

and the marriage relationship (e.g., “How satisfied are you with your spouse as a spouse?”). The scale has demonstrated high internal consistency, test–retest reliability, criterion-related validity, and concurrent and discriminant validity (Schumm et al., 1986). The response scale ranged from 1 = *extremely dissatisfied* to 7 = *extremely satisfied*, and all three items were averaged for a mean score ($\alpha = .97$ mothers, $\alpha = .95$ fathers). Although approximately 10% of participants ($n = 10$) were not married and identified as “living with someone,” the inclusion criteria and explicit purpose of the study render confidence that participants responded to this questionnaire in terms of their partner relationship.

Emotion regulation / cognitive reappraisal

To measure emotion regulation in mothers and fathers, the *cognitive reappraisal* subscale of the *Emotion Regulation Questionnaire* (Gross & John, 2003) was used. The *cognitive reappraisal* subscale consists of six items (e.g., “I control my emotions by *changing the way I think* about the situation I’m in,” $\alpha = .77$ mothers, $\alpha = .80$ fathers). Response scales ranged from 1 = *strongly disagree* to 7 = *strongly agree*. A composite was created based on the mean across all 6 items.

Parental identity

Parental identity was assessed using the *Caregiving Identity Scale*, a 14-item subscale of the Caregiving and Breadwinning Identity and Reflected-Appraisal Inventory (Maurer, Pleck, & Rane, 2001). This measure is used to capture the emphasis a parent places on their role as a caregiver for their child (e.g., “If my spouse provided more caregiving to our child than I did, I would feel uncomfortable”). An average of all 14 items, rated from 1 = *strongly disagree* to 5 = *strongly agree*, was used to create a composite, with higher scores indicating more emphasis on caregiving identity ($\alpha = .65$ mothers, $\alpha = .73$ fathers).

RESULTS

Preliminary Analyses

Zero-order correlations and descriptive statistics of main study variables are presented in Table 1. Marital satisfaction was negatively correlated with parenting distress for both mothers and fathers. Cognitive reappraisal was also negatively correlated with parenting distress for mothers and fathers. Caregiving identity was not significantly correlated with parenting distress for either parent. Fathers’ reports of dysfunctional interactions with their children were negatively associated with his caregiving identity and his cognitive reappraisal capacities. In contrast, mothers’ reports of dysfunctional interactions with their children were not significantly associated with her caregiving identity or cognitive reappraisal levels.

Demographic variables (age of children, parents’ work status, parents’ age, number of children living at home, household income, relationship length) were assessed as potential covariates of marital satisfaction, parenting distress, and parent–child dysfunctional interaction. Significant covariates were later included in our path models.

Prior to hypothesis testing, moderator variables were created by first centering marital satisfaction, parental identity, and cognitive reappraisal variables for mothers and fathers. Centered values were then multiplied (marital satisfaction $\times$ parental identity; marital satisfaction $\times$ cognitive reappraisal) for mothers and fathers, respectively. Centered variables (both predictors and created moderating variables) were used in path analyses.

TABLE 1
Zero-Order Correlations and Descriptive Statistics

Variable	1	2	3	4	5	6	7	8	9	10
1. Marital satisfaction—mother	—									
2. Marital satisfaction—father	.35***	—								
3. Caregiving identity—mother	.09	-.03	—							
4. Caregiving identity—father	.15	-.002	-.35**	—						
5. Emotion regulation—mother	-.09	-.003	.15	-.28**	—					
6. Emotion regulation—father	.14	.04	-.05	.11	.10	—				
7. Parental distress—mother	-.28**	-.14	-.10	.09	-.24*	.03	—			
8. Parental distress—father	-.14	-.26*	-.07	.03	-.13	-.33**	.32**	—		
9. Parent–child dysfunctional interaction—mother	-.11	-.04	-.03	-.07	-.10	.02	.58***	.07	—	
10. Parent–child dysfunctional interaction—father	-.16	-.10	.06	-.32**	.28**	-.26*	.07	.36***	.12	—
Mean	6.06	6.12	4.08	3.57	5.26	5.07	2.30	2.23	1.73	1.78
Standard Deviation	1.14	1.15	0.38	0.42	0.81	0.89	0.67	0.59	0.55	0.45

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

Group Differences in Parental Identity and Cognitive Reappraisal

Paired-samples *t* tests were used to evaluate mean-level differences in parental identity and cognitive reappraisal between mothers and fathers. As expected, mothers reported having stronger parental identity ($M = 4.07$, $SD = .39$) compared to fathers ($M = 3.56$, $SD = .42$), $t(93) = -7.49$, $p < .001$. Contrary to expectations, there were no significant differences in cognitive reappraisal between mothers and fathers ($p = .13$).

Path Models Analysis Plan

This study had three main sets of research questions: (1) Does marital-to-parenting spillover differ based on whether it is experienced by mothers or fathers? We hypothesized that fathers will experience stronger linkages between marital satisfaction and parenting distress and parent-child dysfunctional interaction. (2) Does parental identity moderate marital-to-parenting spillover? We hypothesized that parents with a stronger parental identity will experience weaker linkages between marital satisfaction and parenting distress / parent-child dysfunctional interaction. (3) Does cognitive reappraisal moderate marital-to-parenting spillover? We hypothesized that parents with stronger cognitive reappraisal use would have weaker associations between marital satisfaction and parenting distress / parent-child dysfunctional interaction. See Figure 1 for conceptual path model.

Using Mplus 8.0 (Muthén & Muthén, 1998–2017), nested models with equality constraints were used to test the hypotheses. The systematic use of imposing and releasing equality constraints on regression paths between mothers and fathers allowed us to determine whether spillover and moderating processes were equivalent (in the case of imposed equality constraints) or inequivalent (in the case of released equality constraints) between mothers and fathers (Gonzalez & Griffin, 2012; Kenny, Kashy, & Cook, 2006). A significant chi-square difference test indicated that equality constraints should be released, whereas a nonsignificant chi-square difference test indicated that equality constraints should be imposed (Gonzalez & Griffin, 2012).

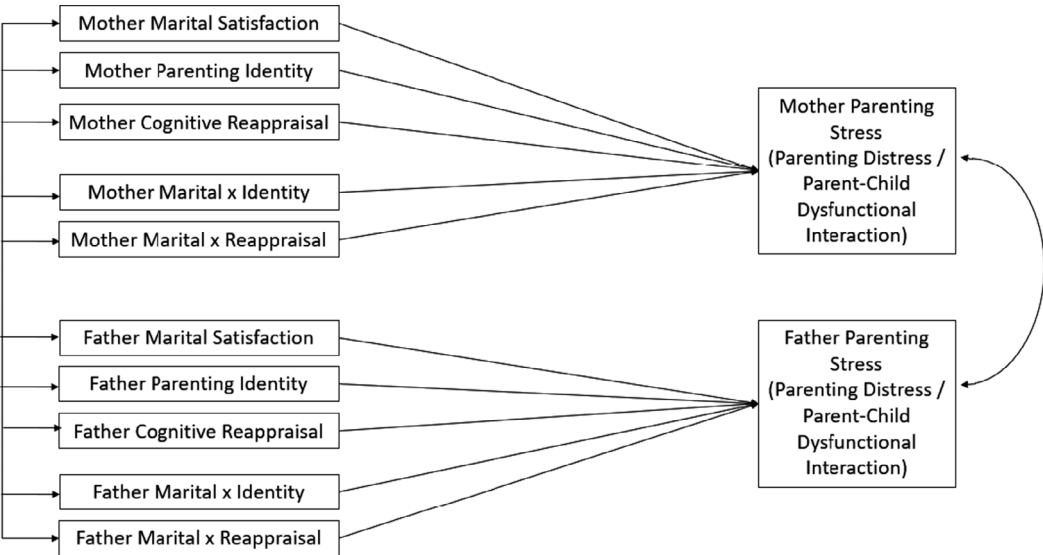


FIGURE 1. Path Analysis.

Note. Multiheaded arrows demonstrate correlations.

TABLE 2
Parental Distress Standardized (b) and Unstandardized (B) Structural Model Estimates

Outcome	Predictors	<i>b</i>	<i>B</i>	<i>SE</i>	<i>p</i>	95% CI
Mothers' parental distress	Mothers' marital satisfaction	-.427	-.251	.055	<.001	[-.342, -.160]
	Mothers' parental identity	.038	.065	.157	.678	[-.193, .324]
	Mothers' emotion regulation	-.251	-.218	.078	.005	[-.346, -.090]
	Mothers' marital satisfaction × parental identity	-.177	-.263	.092	.004	[-.414, -.111]
	Mothers' marital satisfaction × emotion regulation	.114	.080	.035	.024	[.021, .138]
Fathers' parental distress	Fathers' marital satisfaction	-.201	-.103	.041	.013	[-.172, -.035]
	Fathers' parental identity	-.027	-.038	.124	.760	[-.242, .166]
	Fathers' emotion regulation	-.258	-.172	.055	.002	[-.263, -.081]
	Fathers' marital satisfaction × parental identity	-.187	-.263	.092	.004	[-.414, -.112]
	Fathers' marital satisfaction × emotion regulation	.154	.080	.035	.024	[.021, .138]
Fathers' marital satisfaction	Mothers' work status ¹	.171	.199	.104	.056	[.028, .371]
	Average age of children	-.306	-.076	.020	<.001	[-.108, -.043]
	Fathers' work status ²	.202	.660	.332	.047	[.114, 1.207]
Fathers' parental distress	Mother's parental distress	.386	.114	.033	.001	[.059, .169]

Note. ¹ 0 = not working, 1 = working; ² 0 = not working full time, 1 = working full time. *R*² for mother's parental distress = .18, *p* = .005, *R*² for father's parental distress = .31, *p* < .001.

For each outcome (parental distress, parent–child dysfunction), we tested four different models. The free model had no equality constraints and thus assumed that paths would significantly differ for mothers and fathers. This model was also the least parsimonious with the fewest degrees of freedom. The marital constraint model had an equality constraint on the regression path between marital satisfaction and parenting outcome for mothers and fathers, respectively. The moderator constraint model had equality constraints on the moderator variables (marital satisfaction × parental identity; marital satisfaction × cognitive reappraisal) and parenting outcome variables for mothers and fathers, respectively. Finally, the marital and moderator constraint model had equality constraints on both the marital satisfaction regression path and the moderator regression paths. This model was the most parsimonious, with the greatest degrees of freedom. Each of the models with constraints was compared with the free model (least parsimonious), and the best fitting model was used for interpretation. Missing data were handled using full information maximum likelihood.

Parental Distress Models

Based on the results from our preliminary analyses to detect significant demographic variables for inclusion as covariates in our path models, the parental distress models included fathers' work status (working full time vs. not working full time) as a covariate on his marital satisfaction, and mother's work status (working vs. not working) and average age of children as covariates of fathers' parental distress. The free model fits

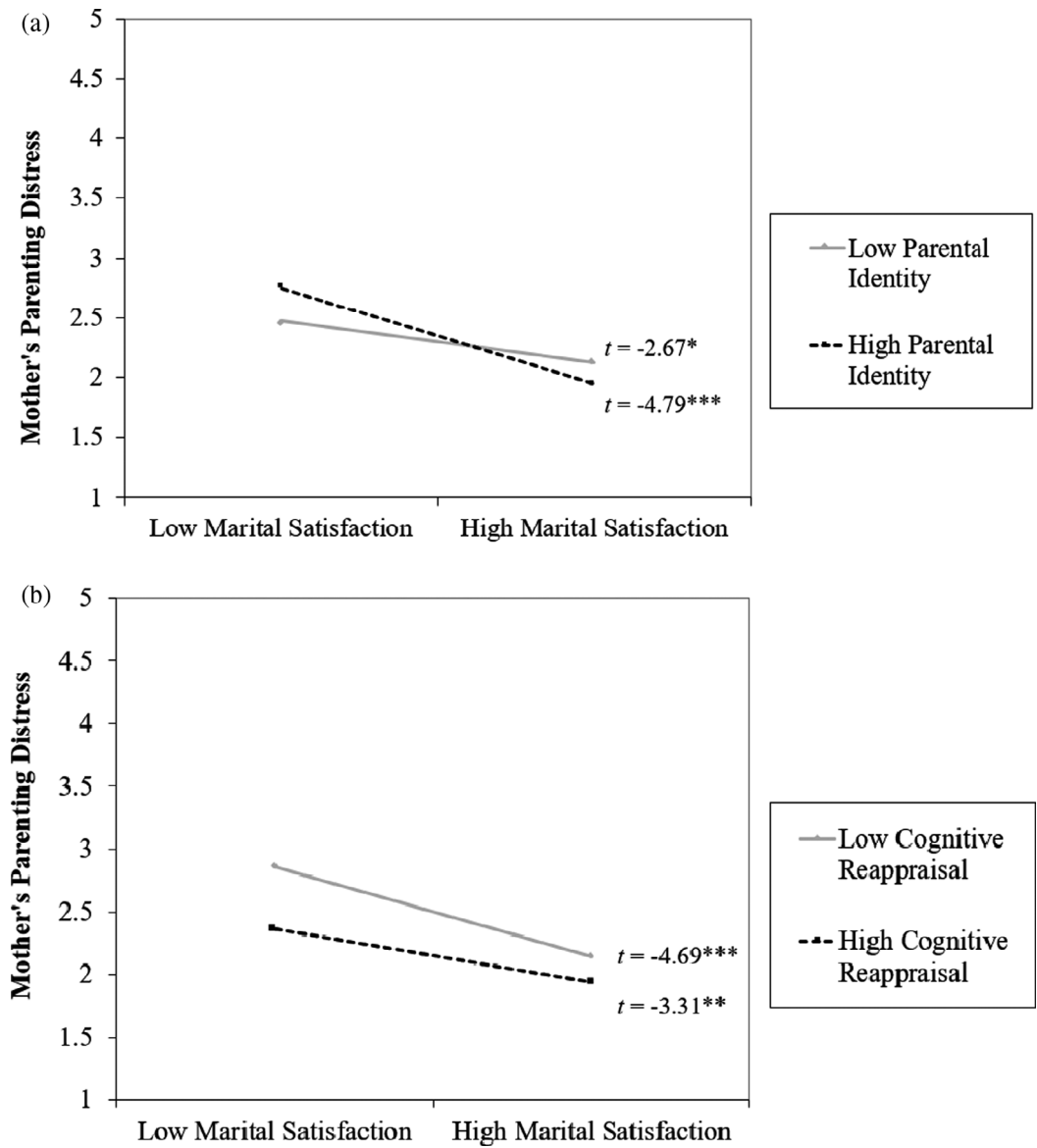


FIGURE 2. Simple Slope Analyses for Mothers' Parental Identity (a) and Cognitive Reappraisal (b). Note. $^*p < .05$; $^{**}p < .01$; $^{***}p < .001$.

significantly better than the marital and moderator constraint model $\chi^2(3) = 8.11, p = .04$, and fits marginally better than the marital constraint model $\chi^2(1) = 3.08, p = .08$. The free model did not fit significantly better than the moderator constraint variable $\chi^2(2) = 3.11, p = .21$, indicating that the more parsimonious moderator constraint model should be used for interpretation (Burnham & Anderson, 2003). The moderator constraint parental distress model had good fit, $\chi^2(27) = 33.61, p = .18$, RMSEA = .05, CFI = .90. See Table 2 for parameter estimates.

When evaluating the first hypothesis, we found that linkages between marital satisfaction and parental distress indeed differed between mothers and fathers, but in the opposite direction of what was expected. As indicated by our moderator constraint model that

assumed unequal paths between marital satisfaction and parenting distress for mothers and fathers, mothers experienced significantly stronger linkages between marital satisfaction and parental distress ($\beta = -.43, p < .001$) compared to fathers ($\beta = -.20, p < .05$).

Our parental distress model results showed that both parental identity and cognitive reappraisal were significant moderators of marital satisfaction on parenting distress for mothers and fathers. The parental distress model also supported our hypothesis that cognitive reappraisal and parental identity as moderators of marital satisfaction and parenting distress would not significantly differ between mothers and fathers, as evidenced by the moderator constraint model being the best fitting model. Simple slope analyses (Preacher, Curran, & Bauer, 2006) were used to test our hypotheses that stronger parental identity and cognitive reappraisal would weaken linkages between marital satisfaction and parenting distress. See supplemental materials for simple slope analyses.

Both the low ($t = -2.67, p < .05$) and high parental identity ($t = -4.79, p < .001$) slopes were significant for mother’s parental distress, see Figure 2a. Among mothers with low or high parental identity, as marital satisfaction increased, parental distress decreased. However, mothers with a high parental identity experienced a steeper decline in parenting distress when marital satisfaction was high, indicating that parental identity actually strengthens linkages between marital satisfaction and parenting distress. In contrast, the low and the high parental identity slopes were not significant for fathers’ parenting distress. This means that among fathers with low or high parental identity, increases in

TABLE 3
Parent–Child Dysfunctional Interaction Standardized (b) and Unstandardized (B) Structural Model Estimates

Outcome	Predictors	b	B	SE	p	95% CI
Mothers’ parent–child dysfunctional interaction	Mothers’ marital satisfaction	–.103	–.049	.030	.106	[–.099, .001]
	Mothers’ parental identity	.032	.046	.142	.747	[–.188, .280]
	Mothers’ emotion regulation	–.180	–.127	.075	.090	[–.249, –.004]
	Mothers’ marital satisfaction × parental identity	.078	.094	.080	.235	[–.036, .225]
	Mothers’ marital satisfaction × emotion regulation	.024	.014	.032	.672	[–.039, .066]
Fathers’ parent–child dysfunctional interaction	Mothers’ age	.226	.030	.014	.025	[.008, .052]
	Fathers’ marital satisfaction	–.124	–.049	.030	.106	[–.099, .001]
	Fathers’ parental identity	–.274	–.293	.101	.004	[–.459, –.126]
	Fathers’ emotion regulation	–.215	–.110	.049	.025	[–.191, –.029]
	Fathers’ marital satisfaction × parental identity	.087	.094	.080	.235	[–.036, .225]
Fathers’ marital satisfaction	Fathers’ marital satisfaction × emotion regulation	.034	.014	.032	.672	[–.039, .066]
	Fathers’ work status ¹	.202	.661	.330	.045	[.118, 1.204]
	Fathers’ parent–child dysfunctional interaction	.137	.030	.023	.207	[–.009, .068]

Note. ¹ 0 = not working full time, 1 = working full time. R^2 for mother’s parent–child dysfunctional interaction = .08, $p = .121$, R^2 for father’s parent–child dysfunctional interaction = .16, $p = .017$.

marital satisfaction do not significantly change fathers' parenting distress. The cross-over interaction effect, however, indicated that among fathers with low marital satisfaction, having a high parental identity was associated with higher levels of parenting distress compared to men with low parental identity ($t = 4.66, p < .001$), and among fathers with high marital satisfaction, having a high parental identity was associated with lower levels of parenting distress compared to men with a low parental identity ($t = 5.88, p < .001$).

Both the low ($t = -4.69, p < .001$) and the high cognitive reappraisal ($t = -3.31, p < .01$) simple slopes were significant for mother's parenting distress, see Figure 2b. Mothers with low or high cognitive reappraisal were less likely to experience parenting distress when they reported higher marital satisfaction. However, the slope was flatter for mothers with high cognitive reappraisal, indicating that having higher cognitive reappraisal weakens ties between marital satisfaction and parenting distress. Neither the low nor high cognitive reappraisal simple slopes were significant for fathers' parenting distress. This means that among fathers with low or high cognitive reappraisal, increases in marital satisfaction do not significantly change fathers' parenting distress. The simple intercepts indicated that among fathers with low marital satisfaction, having high cognitive reappraisal was associated with lowered parenting distress compared to men with low cognitive reappraisal ($t = 6.05, p < .001$), but among fathers with high marital satisfaction, there were no significant differences in parenting distress between men who had low or high cognitive reappraisal.

Parent–Child Dysfunction Models

Based on our preliminary analyses to identify significant demographic variables as covariates in our path models, the parent–child dysfunctional interaction models included mother's age and fathers' work status as covariates. The free model did not fit significantly better than the marital and moderator constraint model $\chi^2(3) = 1.23, p = .75$, or the moderator constraint model $\chi^2(2) = 1.05, p = .59$, or the marital constraint model $\chi^2(1) = .16, p = .69$. Thus, the most parsimonious marital and moderator constraint model was chosen for interpretation. The marital and moderator constraint parent–child dysfunction model had adequate fit, $\chi^2(26) = 33.55, p = .15$, RMSEA = .06, CFI = .72. See Table 3 for parameter estimates.

Regarding parent–child dysfunction, our first hypothesis (fathers will experience stronger linkages between marital satisfaction and parent–child dysfunctional interaction) was not supported, as evidenced by the marital and moderator constraint model being the best fitting model. Marital satisfaction was also not significantly associated with parent–child dysfunctional interaction in this path model. Though we found evidence that cognitive reappraisal and parental identity as moderators of marital satisfaction on parent–child dysfunctional interaction did not differ between mothers and fathers, neither interaction term was significant. In this model, fathers with higher parental identity and cognitive reappraisal reported lower dysfunctional parent–child interaction. In contrast, parental identity and cognitive reappraisal were not significantly associated with mother's parent–child dysfunctional interaction.

DISCUSSION

Overall, this study examined cognitive reappraisal and parental identity as moderators of the association between marital satisfaction and parenting in a sample of couples with young children. Based on the father vulnerability hypothesis (Cummings et al., 2004), a main goal of the study was to test whether there are gender differences in the experience of spillover between marital relationships and parenting, while expecting that fathers

would experience more spillover than mothers. However, when comparing the parental distress and parent-child dysfunction models, we found differing results. For example, while our parental distress models indicated a few gender differences in the experience of spillover, the parent-child dysfunction model did not evince spillover for fathers or mothers. Largely, our analyses yielded some unexpected findings, such as mothers being more vulnerable to spillover than fathers, and that parental identity also increased spillover, instead of decreasing it. The remainder of the discussion will contextualize this work within the marital-parenting spillover literature, address our study's limitations, and describe the broader implications of these findings.

The dyadic data allowed us to test for gender differences using a within-couple approach instead of aggregating across husbands and wives more generally. Because spouses tend to choose one another based on shared traits (Xie, Cheng, & Zhou, 2015) and become more similar to one another over time (Gonzaga, Campos, & Bradbury, 2007), using dyadic data to test for gender differences may be more reflective of couples' actual lived experiences. Our use of dyadic data may have also been the reason why we did not detect gender differences in cognitive reappraisal. While there may be average gender differences in the population in the use of cognitive reappraisal, our data show that there are no gender differences when comparing within couples—who have likely chosen one another based on shared traits and become more similar over time in their emotion regulation (Gonzaga et al., 2007; Xie, Cheng, & Zhou, 2015).

Using the dyadic approach, we also found there to be more gender similarities than differences based on our path model comparisons with and without equality constraints. One particularly notable gender difference was that mothers actually showed stronger associations between marital satisfaction and parenting distress than fathers did, contrary to the father vulnerability hypothesis (Cummings et al., 2004). These findings may be related to our sample's characteristics—that they are all parents with young children. Parenting duties are highly gendered with young children, as mothers are much more involved in the care of infants and toddlers than fathers (Kuo, Volling, & Gonzalez, 2018; Pleck, 1997). However, as children age, fathers become more involved with their children (Pleck, 1997), which may lead to fathers' increased experience of spillover, resulting in father vulnerability (Cummings et al., 2004). Future research could further disentangle how marital-to-parenting spillover is differently experienced for mother and fathers across time as their children age, or between families with young children and those with adolescents.

Before offering our interpretations of the study's findings, we clarify how we defined spillover. We used parents' reports of their stresses in the parenting role and parent-child dysfunctional interaction as the outcome measures. It is important to note how much the findings differed between those two models. Parent-child dysfunctional interaction was unrelated to marital satisfaction, showing no evidence of spillover, whereas parenting distress was consistently associated with marital satisfaction, showing spillover. Although all measures are self-report, we interpret that the spillover process reported here is likely more affective and cognitive than behavioral. Within spillover literature, both marital and parenting variables have been operationalized a multitude of ways (Erel & Burman, 1995; Gao & Cummings, 2019; Gao et al., 2019; Stevenson et al., 2018). We emphasize that our findings mostly pertain to parenting stress and should be interpreted with that lens.

We were the first to test the critical assumption from the father vulnerability hypothesis that weaker parental identity accounts for the greater spillover generally observed in fathers (Cummings et al., 2004). We found the opposite. Strong parental identities appeared to create vulnerabilities to spillover, especially for mothers. Why would having a strong parental identity strengthen associations between decreased marital satisfaction and increased parenting distress? According to the expansionist theory on gender and families (Barnett & Hyde, 2001), occupying multiple roles (such as wife, mother, worker,

friend) typically delivers greater psychological benefits compared to occupying fewer roles. When one role is overemphasized, stressors within that role are more likely to cause global distress instead of being compartmentalized (Barnett & Hyde, 2001). Thus, the parents in our sample with high parental identity are likely to feel amplified stress in their family lives. Though we did not measure role strain, a potentially fruitful direction for future research would be to examine role strain within the context of spillover.

Contextualizing parental identity within the affective lens of this study offers additional insight to this unexpected finding. Balancing the demands of parenthood, particularly with young children, includes not only childcare and housework but the more significant contribution of emotion work (Erickson, 2005; Pedersen, 2017). Emotion work involves enhancing another family member's well-being through emotional encouragement and support (Erickson, 1993), and plays a key role in marital satisfaction or burnout, particularly for mothers (Pedersen, 2017). Such positive interactions accumulate over time, helping to maintain relationship satisfaction amidst threat and conflict (Walsh, Neff, & Gleason, 2017). A parent whose role identity elevates caregiving above all else increases the need for validation and affirmation in their day-to-day role demands (Allen & Hawkins, 1999), possibly placing even greater emphasis on emotion support from a spouse to supply feelings of well-being. Without the emotion work provided by a spouse in a satisfactory marriage, the individual parent may be more susceptible to the daily rigors of parenthood that can aggravate and challenge a parent's patience, especially with young children. Our findings also reveal that women with strong parental identities who are highly satisfied with their marriages experience the least distress—indicating the protective power of high quality marriages for women who may otherwise be vulnerable to greater parenting stress.

Family stress theory lends an additional lens to this interpretation. For instance, where high parental identity may increase validation work for the parenting partner (Allen & Hawkins, 1999), a relationship disconnect between partners may render a sense of ambiguous loss, a facet of family stress theory that can occur when a family member is perceived as physically but not emotionally present (Boss, 2004). This type of stress disrupts normal family functioning and generates a feeling that one's partner is "here, but not here" (Boss, 2016), obscuring expected roles and interactions.

While parental identity was hypothesized to be a mechanism of compartmentalization according to the father vulnerability hypothesis (Cummings et al., 2004), we evaluated a component of emotion regulation (i.e., cognitive reappraisal) that is known to reduce distress (Gross & John, 2003; Nolen-Hoeksema, 2012). We found that high levels of cognitive reappraisal weakened associations between marital satisfaction and parenting distress, particularly for mothers. Fathers with low marital satisfaction also appeared to benefit from having high cognitive reappraisal as they experienced lower levels of parental distress. Importantly, although global comparisons of men and women have indicated that women use cognitive reappraisal more than men (Nolen-Hoeksema, 2012), we found that within our couples, mothers and fathers did not significantly differ on cognitive reappraisal. Our results provide counter evidence to previous gender-based assumptions that men are more sensitive to stresses in the marriage due to lower tolerance for negative emotions (Bloch et al., 2014; Levenson et al., 1994). Perhaps the observed gender differences in previous marital literature may be accounted for by taking a within-couple approach.

There are several limitations to this study that should be noted, mainly that the data were cross-sectional. While some scholars may argue that the study of spillover requires a temporal component, we contend that because spillover is merely comprised of the transferring of emotions and behavior between settings (Almeida et al., 1999) that the study of spillover does not necessarily require longitudinal measures (e.g., see Nelson, O'Brien,

Blankson, Calkins, & Keane, 2009). Another limiting issue with the cross-sectional nature of this data is that the directionality of associations between marital satisfaction and parenting cannot be determined. However, given the robust empirical support for spillover from the marital to parenting subsystems (Erel & Burman, 1995; Gao & Cummings, 2019; Gao et al., 2019; Stevenson et al., 2018) and family systems theory's supposition that the couple relationship is the epicenter of the family from which all other relationship dynamics emanate (Bowen, 1978; Cox & Paley, 2003), we feel comfortable in applying this framework to our cross-sectional data. We also note that all measures were self-report, as this was an online study, and there are associated limitations with using self-reported measures. However, our online study allowed for some strengths, such as geographic diversity and dyadic data from mothers and fathers. While data were collected from across the United States, representing geographic diversity, our results may only be generalizable to other White, married, well-educated, and high-income couples across the United States. Future research could address these questions in a different population and consider variations in other contextual stressors. Finally, we note that the reliability for the parental identity measure was lower for mothers than fathers.

Returning to marriage as the epicenter of family relationships and interactions (Bowen, 1978; Cox & Paley, 2003), this study makes some important contributions. We have advanced the study of family science by testing parental identity and cognitive reappraisal as moderators of marital-to-parenting spillover. Using recently collected data (from 2019) to test long-held assumptions about gendered processes in marriage, we provide evidence that those assumptions are outdated. By examining these moderating factors, we provide a more holistic picture of the spillover process, specifically that the emphasis a spouse places on their role as a parent interacts with the marriage relationship to exacerbate parenting stress. This study emphasizes the need to consider both mothers and fathers in mitigating parenting effects related to marital satisfaction, and to consider how these parents individually conceptualize parental identity. Instead of a "father vulnerability" framework (Cummings et al., 2004), this study found a stronger vulnerability in mothers as their parental identity was more highly prioritized, supporting a "mother vulnerability" hypothesis instead. This may be reflective of the more traditionally gendered roles of our sample's demographics (84.7% fathers were employed full time compared to 36.4% mothers), but comparison with a qualitative study (Roy & Dyson, 2005) suggests that this phenomenon may be experienced equally by mothers and fathers depending on circumstantial contexts. In this current day and age of intensive parenting (Schiffrin, Godfrey, Liss, & Erchull, 2015), widespread social comparisons due to social media (Appel, Marker, & Gnambs, 2020), and increased family stress with the recent COVID-19 pandemic that accentuates emotional and commitment safety between partners (Stanley & Markman, 2020), this study urges parenting partners to consider individual and collective mindsets about parenting identities and to recognize the switch point that relationship support can play in mitigating everyday stresses of family life.

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