




Traditional Gender Ideology, Work Family Conflict, and Marital Quality among Chinese Dual-Earner Couples: A Moderated Mediation Model

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Published online: 11 February 2020

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Abstract

Traditional gender ideology, which refers to individuals' expectations for the gendered segregation between work and family responsibilities, is a well-documented predictor for marital quality. Using three annual-wave, dyadic data from 240 Chinese dual-earner heterosexual couples surveyed during the early years of their marriage, we (a) examined how husbands' and wives' endorsement of traditional gender ideology interact with each other to predict marital quality and (b) tested work-to-family and family-to-work conflict as potential mediators to delineate the mechanisms via which traditional gender ideology shapes marital quality. We found that, among couples in which wives endorsed weaker traditional gender ideology at Wave 1, husbands' stronger endorsement of traditional gender ideology at Wave 1 predicted lower levels of husbands' marital quality at Wave 3 via higher levels of husbands' family-to-work conflict at Wave 2. Further, husbands' stronger endorsement of traditional gender ideology at Wave 1 predicted higher levels of their own work-to-family conflict at Wave 2 and their wives' family-to-work conflict at Wave 2. Our findings highlight the importance of considering the discrepancy between two partners' endorsements of traditional gender ideology in practice work to promote marital well-being. Furthermore, our findings suggest the necessity of promoting husbands' endorsement of less traditional gender ideology for improving marital well-being in contemporary Chinese society.

Keywords Chinese couples · Dual careers · Family work relationship · Gender role · Marital satisfaction

Gender ideology refers to culturally defined attitudes about the roles, rights, and responsibilities of men and women in a given

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Electronic supplementary material The online version of this article (<https://doi.org/10.1007/s11199-020-01125-1>) contains supplementary material, which is available to authorized users.

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society (Brannon 2005; Greenstein 1996b). Although each culture may hold its unique perspective for the roles, rights, and responsibilities that men and women are supposed to exhibit, cross-cultural similarities do exist (for a review, see Gibbons et al. 1997). Moreover, one core component of gender ideology is individuals' attitudes toward the division of paid work and family responsibilities between men and women, with a more traditional gender ideology indicating stronger endorsement of gendered segregation wherein men should focus on the paid work whereas women should focus on family responsibilities (for a review, see Davis and Greenstein 2009).

In the field of couple relationships, researchers have identified traditional gender ideology as an important predictor of marital quality, which is often defined and assessed as the subjective, global evaluation of conjugal happiness and relational satisfaction (Bradbury et al. 2000; Davis and Greenstein 2009; Fincham and Bradbury 1987). Yet, mixed results have been obtained in terms of the link between the endorsement of traditional gender ideology and marital quality (Amato and Booth 1995; Greenstein 1996b; Rakwena 2010; Rogers and Amato 2000; Xu and Lai

2004). To clarify the mixed findings, researchers propose that husbands' and wives' traditional gender ideologies may operate in conjunction with each other to shape marital outcomes (Davis and Wills 2010; Greenstein 1996a). Specifically, husbands' strong endorsement of traditional gender ideology may predict negative marital outcomes when wives hold low levels of endorsement of traditional gender ideology, whereas positive outcome may emerge when both partner are congruent with each other in their endorsement of traditional gender ideology (Davis and Wills 2010; Greenstein 1996a). Following this proposition, we examined the potential interactive effects between husbands' and wives' traditional gender ideologies when revisiting the link between traditional gender ideology and marital quality.

Further, the mechanisms underlying the link between traditional gender ideology and marital quality remain understudied. To this end, the present study adopted a process perspective to identify the mechanism that may account for the association between traditional gender ideology and marital quality. Work family conflict, which is defined as a form of inter-role conflict between work and family spheres (Greenhaus and Beutell 1985), may be a mediator that merits particular attention for several reasons. First, during the past few decades, both women's labor force participation rates and the expectations for men's involvement in family responsibilities have risen considerably, and the number of dual-earner couples has increased substantially across the world (Kelly et al. 2014). As a result, both men and women in a dual-earner couples need to simultaneously handle work and family roles, and based on a recent report, about 50% of employees have experienced difficulties in negotiating work and family roles (Fellows et al. 2016).

Second, work family conflict may generate significant stress, and coping with such stress may drain partners' resources (e.g., energy, time) that otherwise they might have been devoted to maintaining the couple's relationship, which in turn, may diminish their perceived marital quality. Indeed, a number of couples sought marriage and family therapy because of issues with respect to work family conflict (Carroll et al. 2013; Fellows et al. 2016; van Steenbergen et al. 2014). Third, for individuals who strongly endorse traditional gender ideology, negotiating between work and family responsibilities may be particularly challenging because they tend to expect the gendered segregation of work and family responsibilities and may therefore focus on one sphere yet become unable/unwilling to enact roles in the other sphere (Davis 2011). Taken altogether, it seems warranted to expect that the stronger endorsement of traditional gender ideology may predict lower marital quality via increased levels of work family conflict.

Notably, the aforementioned research has been based predominantly on Western samples, whereas the association between traditional gender ideology and marital quality among non-Western couples (including Chinese dual-earner couples)

remains understudied. The necessity of studying this association among Chinese couples is highlighted by at least two facts: (a) the large proportion of dual-earner couples in China (i.e., over 90%; the International Labor Office 2011), and (b) more importantly, contemporary China is in a transitional state where variations in traditional gender ideology should be larger than ever and the complexity of work and family life are increasing (Ji and Wu 2018; Ji et al. 2017).

In the present study, we used three annual-wave, dyadic data from 240 Chinese dual-earners to conduct a moderated mediation model. We expected the interaction between husbands' and wives' traditional gender ideology at Wave 1 to be linked to both partner's marital quality at Wave 3 via both partners' work family conflict at Wave 2. We also controlled for marital quality at Wave 1 as well as factors that were highly correlated with work family conflict at Wave 1. Thus, the present study contributes to the literature by examining (a) how traditional gender ideology of two partners in a couple may operate in conjunction with each to shape marital well-being and (b) the mediating processes underlying these associations among a still understudied population (i.e., dual-earner couples in contemporary China).

Traditional Gender Ideology and Marital Quality

As we noted previously, mixed findings emerged in the main association between traditional gender ideology and marital quality. Some researchers found that husbands' stronger endorsement of traditional gender ideology was associated with lower levels of their own marital quality, whereas wives' stronger endorsement of traditional gender ideology was associated with higher levels of their own marital quality (Amato and Booth 1995). In other studies, husbands' and wives' stronger endorsement of traditional gender ideology were both related to higher levels of their own relationship quality (Qian and Sayer 2016; Rogers and Amato 2000). Further, there is evidence suggesting that husbands' and wives' stronger endorsement of traditional gender ideology were both related to lower levels of their own relationship quality (Bourne 2006; Falconier 2013; Rakwena 2010; Xu and Lai 2004).

Interactions between Husbands' and Wives' Ideologies

Studies have identified interactive effects between two partners' traditional gender ideologies on couple relationship outcomes (Bowen and Orthner 1983; Lye and Biblarz 1993; Minnotte et al. 2013; Minnotte et al. 2010). As Bowen and Orthner (1983) found, husbands' stronger endorsement of

traditional gender ideology did not relate to either husbands' or wives' marital quality when wives also strongly endorsed a traditional gender ideology; in contrast, among couples in which wives weakly endorsed a traditional gender ideology, husbands' stronger endorsement of traditional gender ideology was detrimental for their own and their wives' marital quality.

These findings were partially replicated by subsequent studies. Specifically, when wives weakly endorsed a traditional gender ideology, husbands' stronger endorsement of a traditional gender ideology was related to lower levels of their own and their wives' marital quality (Falconier 2013; Lye and Biblarz 1993). When wives strongly endorsed a traditional gender ideology, husbands' stronger endorsement of a traditional gender ideology was related to higher levels of their own and their wives' relationship well-being (Lye and Biblarz 1993). Similarly, as compared to couples in which husbands weakly endorsed a traditional gender ideology, stronger negative associations existed between wives' stronger endorsement of a traditional gender ideology and husbands' marital satisfaction among couples in which husbands strongly endorsed a traditional gender ideology (Hengstebeck et al. 2015). Furthermore, among couples in which husbands strongly endorsed a traditional gender ideology whereas wives weakly endorsed a traditional gender ideology, wives reported relatively low levels of marital satisfaction; among couples in which husbands and wives both strongly endorsed a traditional gender ideology, wives reported relatively low levels of marital satisfaction (Cao et al. 2019).

Taken collectively then, we hypothesized that husbands' and wives' traditional gender ideologies would interact with each other in predicting husbands' and wives' marital quality. When wives endorsed a weaker traditional gender ideology, husbands' stronger endorsement of traditional gender ideology would predict lower levels of husbands' and wives' marital quality. In contrast, when wives endorsed a stronger traditional gender ideology, husbands' stronger endorsement of traditional gender ideology would predict higher levels of husbands' and wives' marital quality (Hypothesis 1).

Work Family Conflict as a Mediating Mechanism

Work family conflict includes both *work-to-family conflict* (i.e., participating in work roles makes it difficult to enact family roles; WFC) and *family-to-work conflict* (i.e., participating in family roles makes it difficult to enact work roles, FWC) (Frone 2003). To our knowledge, few studies have examined the mediating roles of work family conflict (either WFC or FWC), particularly in the association between traditional gender ideology and marital quality. Yet, existing theories and empirical research have suggested the associations (a)

between traditional gender ideology and work family conflict and (b) between work family conflict and marital quality.

Traditional Gender Ideology and Work Family Conflict

Informed by two perspectives (i.e., the rational viewpoint and gender role theory; Gutek et al. 1991), stronger endorsement of traditional gender ideology may predict higher levels of WFC and FWC. Yet, the associations between traditional gender ideology and either WFC or FWC may differ between husbands and wives. Specifically, the rational viewpoint proposes that individuals' traditional gender ideology shapes their resource allocation (i.e., how individuals invest time and energy to family or work spheres) (Carlson and Kacmar 2000; Gutek et al. 1991). Moreover, husbands who strongly endorse traditional gender ideology often spend time and energy in the work sphere, whereas wives who strongly endorse traditional gender ideology often invest more resources into the family sphere (Cunningham 2005; Huffman et al. 2014; Nitsche and Grunow 2016). Because the increased time and energy that are invested in one sphere may limit the ability to enact roles in the other sphere (Gutek et al. 1991), husbands' stronger endorsement of a traditional gender ideology may be related to higher levels of WFC, whereas wives' stronger endorsement of a traditional gender ideology may be related to higher levels of FWC (Hypothesis 2a).

However, the gender ideology theory states that traditional gender ideology will predict the extent to which work or family roles are central in an individual's life (Carlson and Kacmar 2000; Gutek et al. 1991). Moreover, husbands who strongly endorse a traditional gender ideology are mentally preoccupied with the work role, and wives who strongly endorse a traditional gender ideology are mentally preoccupied with the family role. Because individuals often feel that less salient roles disrupt more salient roles (Carlson and Kacmar 2000), husbands' stronger endorsement of a traditional gender ideology may be related to higher levels of FWC, whereas wives' stronger endorsement of a traditional gender ideology may be related to higher levels of WFC (Hypothesis 2b).

To date, no known studies have examined whether Hypotheses 2a and 2b were mutually exclusive or complementary, although preliminary evidence has been identified that stronger endorsement of a traditional gender ideology was related to higher levels of WFC or FWC among both the Asian (e.g., Israel and India) and the Western (e.g., U.S., Belgium, and Swiss) samples (Davis 2011; Korabik et al. 2008; Meeussen et al. 2019; Rajadhyaksha et al. 2015). Moreover, most of the aforementioned studies were limited in collecting data from only one partner in a couple (for an exception, see Meeussen et al. 2019). Thus, these studies failed to capture the interdependence between two partners in a couple (i.e., the most defining characteristic of couple relationships; Arriaga 2013). The sparseness of research based

on couple dyadic data also hinders the systematic examination of the potential interactions between husbands' and wives' traditional gender ideology in predicting work family conflict.

Work Family Conflict and Marital Quality

As suggested by meta-analytic studies, both WFC and FWC were negatively associated with marital quality, and the effect size seemed consistent across men and women (Amstad et al. 2011; Fellows et al. 2016; Shockley and Singla 2011). However, a more rigorous examination is still in need to obtain a better understanding of the complexity in the association between work family conflict and marital quality. Specifically, there has been a long-standing conclusion that the association between FWC and marital quality is somewhat understudied (especially in comparison to the substantial body of research on the association between WFC and marital quality). Indeed, both theoretical and statistical considerations, as we discuss in the following, may help justify the importance of addressing this limitation (for similar arguments, see Bianchi and Milkie 2010; Minnotte et al. 2013; Minnotte et al. 2015).

Theoretically, FWC and WFC represent different aspects of work family conflict, and they may relate to marital quality in distinct ways. In terms of the association between WFC and marital quality, individuals enact more destructive behaviors (e.g., hostility and criticism) and express less warmth when experiencing higher levels of WFC (Bakker et al. 2008; Matthews et al. 1996; van Steenbergen et al. 2014). Negative couple interactions along with higher levels of WFC then would lead to lower levels of relationship quality (Bakker et al. 2008; Matthews et al. 1996; van Steenbergen et al. 2014). For associations between FWC and relationship quality, when individuals feel that the couple relationship thwarts their participation in work roles, they may realize that staying in the relationship is costly for personal development and benefits, which then reduces their satisfaction with the relationship (Voydanoff 2005).

Statistically, WFC and FWC are moderately interrelated, suggesting that these two constructs overlap somewhat but are still distinct (Amstad et al. 2011, $r = .60$; Gonçalves et al. 2018). To examine the unique contributions of WFC and FWC to marital quality, researchers need to include *both* constructs simultaneously in a single model. In the present study, we extend the prior cross-sectional studies that considered both WFC and FWC (e.g., Minnotte et al. 2015) by including both WFC and FWC in a longitudinal model. We expected that higher levels of WFC and FWC would predict lower levels of marital quality among both husbands and wives (Hypothesis 3).

Moreover, in light of the aforementioned rationale for Hypotheses 2a, 2b, and 3, some moderated mediation hypotheses can be proposed. That is, husbands' and wives' work family conflict will mediate the interactive effects between

husbands' and wives' traditional gender ideology on marital quality (Hypothesis 4a). Given the potential gender difference in associations from traditional gender ideology to WFC and FWC, the mediating roles of WFC and FWC may also vary between husbands and wives, suggesting moderation by partner's gender (Hypothesis 4b).

Chinese Dual-Earner Couples and their Cultural Context

A brief introduction of gender ideology in traditional Chinese culture as well as work and family dynamics in contemporary China may help to better understand how broad cultural context may inform the current analyses based on a sample of Chinese dual-earner couples. To begin, traditional gender ideology in China, as is the case with the other cultures, includes a component that reflects individuals' support for gendered segregation between paid work and family spheres (Cao et al. 2019; Qian and Sayer 2016). In addition, the belief that men should focus on the work sphere and women should focus on the family sphere seems to be a particularly essential theme of traditional gender ideology in China. In fact, long-standing patriarchal traditions in China have endorsed a highly gender-based division of labor and responsibility (i.e., the breadwinner-husband and homemaker-wife), which is reflected by the old Chinese saying: “男主外，女主内” (nan zhu wai, nü zhu nei) [Men should be primarily responsible for extra-familial issues] (Pimentel 2006; Qian and Qian 2015). Similarly, for Chinese women, the importance of career pursuits has been underestimated historically, which is reflected by the old Chinese saying: “干得好不如嫁得好” (gan de hao bu. ru jia de hao) [Doing well in career is not as good as marrying well] (Chen 2018; Gaetano 2017).

However, the aforementioned traditional gender ideology has been challenged by dramatic political, social, economic, and cultural reforms that have taken place in China during the past several decades (Davis 2014; Xu et al. 2007). Since 1949, the state has devoted substantial efforts to promote gender egalitarianism, which can be reflected by the famous gender equality slogan: “妇女能顶半边天” (fu nv neng ding ban bian tian) [Women can hold up half of the sky] (Zuo 2013). The state also issued laws to protect women's rights involving marriage freedom, property, education, and employment (Davis 2014). As a consequence, women's participation in the labor market has increased dramatically, and the proportion of dual-earner couples in China is among the highest in the world (Ji et al. 2017; Sun and Chen 2015). Meanwhile, mutually conflicting rapid social changes and long-lasting traditional gender ideology have engendered debates on whether work and family responsibilities should still be segregated between men and women in contemporary China (Xu 2010; Yu 2015). Thus, there should be more variability in the extent

to which Chinese individuals endorse traditional gender ideology than ever before (Ji 2015).

For work and family lives for dual-earner couples in contemporary China, the transition from a planned economy period to a marketization period in recent several decades has increased the complexity of work and family lives. In particular, during the planned economy period (i.e., 1949–1978), the system of 单位 (danwei; the work unit of the state-owned enterprise) provided reproductive and care services (e.g., laundry, dining hall, and childcare) to each family (Ji et al. 2017). With housework burdens reduced during the planned economy period, the work family conflict experienced by Chinese dual-earner couples has been, albeit not completely solved, greatly alleviated (Ji et al. 2017). However, as China transitioned from the planned economy period into the marketization period, the danwei system collapsed (Ji and Wu 2018). Interestingly, whereas wives in Chinese dual-earner couples are responsible for the majority of family responsibilities that were previously taken over by danwei, husbands in dual-earner couples nowadays seem to be more involved in family spheres than husbands in early generations (Ji and Wu 2018; Pimentel 2006; Sun and Chen 2015; Zhang 2017). Thus, Chinese husbands and wives may both shoulder double burdens and experience intensified work family conflict.

Method

Participants

The current study used data from the Chinese Newlyweds Longitudinal Study, a project that aims to examine the predictors of marital well-being among Chinese couples during the first few years of marriage. Chinese heterosexual couples were recruited using various strategies, including online advertisements, community posters, and acquaintance referrals. Eligible couples were (a) in their first marriage, (b) without a child, (c) married for less than 3 years, and (d) residing in Beijing. In 2011 (i.e., Wave 1), 268 eligible couples participated in the project. Recruited couples were followed up in 2012 (i.e., Wave 2) and 2013 (i.e., Wave 3), and the sample sizes were 224 couples at Wave 2 (retention rate = 83.58%) and 203 couples at Wave 3 (retention rate = 75.75%).

Given the present research foci, only dual-earner couples were included in the current sample. The sample size for the present sample was 240 couples at Wave 1, 202 at Wave 2 (retention rate = 84.17%), and 181 at Wave 3 (retention rate = 75.42%). To identify potential selection biases (i.e., differences between the 28 couples who were not included and the 240 couples who were included), we conducted a multivariate analysis of variance (MANOVA) on key study variables and covariates. No significant difference emerged.

For the 240 dual-earner couples in the present study and at Wave 1, the average length of marriage was 13.41 months ($SD = 9.48$, range = 0–36). The mean age was 29.59 years old ($SD = 3.32$, range = 22–47) for husbands and 28.05 years old ($SD = 2.57$, range = 23–51) for wives. The median level of monthly income was 7000 Chinese Yuan (RMB; $SD = 6319.01$, range = 1500–50,000; approximately \$1026.69) for husbands and 5000 Chinese Yuan ($SD = 3922.82$, range = 600–30,000; approximately \$733.35) for wives. The mode of the educational level was a bachelor's degree for both husbands and wives. Notably, participants in the present study had relatively higher levels of education and income in comparison to the census data at the year of data collection (Beijing Bureau of Statistics 2011; National Bureau of Statistics of China 2012).

Measures

Traditional Gender Ideology at Wave 1 (the Predictor)

Traditional gender ideology was assessed using three self-developed items (i.e., “Men should be primarily responsible for extra-familial issues, whereas women should be primarily responsible for intra-familial chores,” “The primary responsibility for husbands is to earn bread,” and “The primary responsibility for wives is to take care of husband and children”). These items were consistent with items that were already validated in studies on traditional gender ideology in the East Asian population (e.g., “A husband's job is to earn money; a wife's job is to look after the home and family.”; Qian and Sayer 2016). Partners indicated the extent to which they agree with each item on a 5-point Likert scale ranging from 1 (*strong disagreement*) to 5 (*strong agreement*). Scores of the three items were averaged. Higher mean scores indicated a stronger endorsement of traditional gender ideology. Cronbach's alphas were .85 for husbands and .78 for wives.

Work Family Conflict at Wave 2 (the Mediator)

Spouses' work-to-family conflict (WFC) and family-to-work conflict (FWC) were assessed using the Work Family Conflict Scale (Netemeyer et al. 1996). The WFC (e.g., “The demands of my work interfere with my home and family life”) and the FWC (e.g., “Things I want to do at work don't get done because of demands of my family or partner/spouse”) subscales each included five items. Partners indicated the extent to which they agree with each item on a 7-point Likert scale ranging from 1 (*very strong disagreement*) to 7 (*very strong agreement*). Items were averaged, and higher mean scores indicating higher levels of WFC and FWC. For husbands, Cronbach's alphas were .93 for WFC and .90 for FWC; for wives, Cronbach's alphas were .93 for WFC and .87 for FWC.

Marital Quality at Waves 1 (a Control) and 3 (the Outcome)

Marital quality was assessed using the six-item unidimensional Quality Marriage Index Scale (QMI; Norton 1983). In comparison to the omnibus measures that simultaneously assessed multiple domains of couple relationship function (e.g., The Dyadic Adjustment Scale that includes a subscale specific to disagreement between partners), leading scholars in the field of couple relationship have argued that global, unidimensional measures of marital quality can avoid overlap in measures of marital quality and measures of potential predictors (Fincham and Bradbury 1987; Fincham and Rogge 2010). The global measurement should therefore be preferred because it is less susceptible to the interpretation problems that may arise in the omnibus measures of marital quality (Fincham and Bradbury 1987; Fincham and Rogge 2010).

Specific for QMI, partners responded to the first five items on a 7-point Likert scale ranging from 1 (*very strong disagreement*) to 7 (*very strong agreement*). An example item is: “We have a good marriage.” Partners also were asked to indicate how happy they were in their relationship with all things considered (i.e., the sixth item). The response scale ranged from 1 (*very unhappy*) to 10 (*perfectly happy*). Scores for items were averaged, and higher mean scores indicating higher levels of relationship quality. For husbands, Cronbach’s alphas were .92 at Wave 1 and .96 at Wave 3; for wives, Cronbach’s alphas were .95 at Wave 1 and .97 at Wave 3.

Covariates

In addition to the demographic characteristics (i.e., marital length, age, monthly income, and educational level), we included several other covariates given their associations with the key study variables. In particular, premarital cohabitation was typically associated with lower relationship quality, so we assessed cohabitation before marriage using a binary variable, with 0 indicating that two partners within a couple did not cohabit together before marriage and 1 indicating they cohabited before marriage (Jose et al. 2010). Further, dual-earner couples with children may experience even higher levels of work family conflict than dual-earner couples without children because fathers and mothers both need to negotiate their work burdens and their significant children care responsibilities (Michel et al. 2011; Shockley et al. 2017). Thus, parental status was assessed using a binary variable, with 0 indicating that couples did not have a child and 1 indicating that couples had child(ren) by Wave 3. In addition, we included two items that were related to either WFC or FWC at Wave 1. For the item that was related to WFC at Wave 1, husbands and wives indicated how often during past 12 months they “worked too much so that they ignored their families” on a 4-point Likert scale ranging from 1 (*never*) to 4 (*very often*). For the item that

was related to FWC at Wave 1, husbands and wives indicated how often during past 12 months they “terminated or changed their career development for the sake of the partner” on a 5-point Likert scale ranging from 1 (*never*) to 5 (*always*).

Procedure

Data collection procedures were consistent across all three waves. For compliance with standards for the ethical treatment of human participants, data collection procedures were reviewed and approved by the Institutional Review Board at the Beijing Normal University. Both partners were invited to the university lab. For couples who could not come to the lab, home visits were scheduled for data collection. For each couple, trained research assistants first described the study and obtained informed consent from both partners within a couple. Husbands and wives were asked to separately complete a series of self-report questionnaires. Lastly, couples were debriefed and paid 100 Chinese Yuan (approximately \$16) for their participation in the survey part of the larger project. All surveys were conducted in Chinese Mandarin.

Analytic Strategies

Structural equation model was conducted via Mplus 7.4, and missing values were handled with full information maximum likelihood estimation method (FIML; Acock 2005). To evaluate the model fit, several indices were included: Chi-square test, comparative fit index (CFI > .90), root mean square error of approximation (RMSEA < .08), and standardized root mean-square residual (SRMR < .08) (Kline 2015). Latent constructs of work family conflict (WFC and FWC) and marital quality were constructed based on item scores, which reduces the measurement error that can otherwise be inflated by the utilization of manifest variables (MacCallum and Austin 2000). To note, we have tried to include latent constructs of traditional gender ideology and conducted a latent moderated structural equation model (LMS; Maslowsky et al. 2015). Yet the model did not converge given its complexity. As such, husbands’ and wives’ traditional gender ideology were included as manifest variables. Moreover, marital quality at Wave 1, WFC at Wave 1, and FWC at Wave 1 were all controlled for to estimate autoregressive stability effects. We considered the covariance among husbands’ and wives’ WFC and FWC at Wave 2 to examine their unique mediating roles. Covariates were regressed on husbands’ and wives’ marital quality at Wave 3. We also considered covariances between covariates and either two partners’ traditional gender ideologies at Wave 1 or their work family conflict at Wave 2.

To test the interaction between husbands’ and wives’ traditional gender ideology at Wave 1, we centered these two continuous predictors around the sample mean and created an interactive term by multiplying the centered husbands’ and

wives' traditional gender ideologies. If the interactive term significantly predicts either the mediator or the outcome, we then investigated whether the simple slope of the predictor on the mediator or the outcome is statistically significant at the chosen value of moderator [i.e., typically ± 1 *SD* from the mean for continuous variables, but any other meaningful value (e.g., mean ± 1.5 *SD*) can be chosen; Brody et al. 2016; Preacher et al. 2006; Preacher et al. 2007]. We also tested the conditional indirect pathway (predictor \rightarrow mediator \rightarrow outcome) at the chosen value of the moderator (Preacher et al. 2007).

To estimate indirect effects, we used the bootstrapping approach, a nonparametric method that does not assume a normal distribution of indirect effects and can adjust inflated Type I and Type II errors (Preacher and Hayes 2008). The bias-

corrected bootstrapped confidence intervals (CIs) were based on 1000 resamples. Conclusions regarding the statistical significance of indirect pathways were drawn from 95% bias-corrected bootstrapped CIs around the unstandardized indirect associations.

Results

Table 1 displays the descriptive statistics and the zero-order bivariate correlations. Overall, a stronger endorsement of traditional gender ideology was associated with higher levels of WFC and FWC. Higher levels of WFC and FWC were related to lower levels of marital quality. In addition, significant correlations were identified between key study constructs and

Table 1 Descriptive statistics and correlations among study variables

| Variables | <i>M</i> | <i>SD</i> | Correlations | | | | | | | | | |
|---|----------|-----------|--------------|------|---------|---------|--------|---------|--------|--------|---------|---------|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Key study variables | | | | | | | | | | | | |
| 1. Traditional gender ideology (H-W1) | 3.16 | .86 | – | | | | | | | | | |
| 2. Traditional gender ideology (W-W1) | 2.87 | .82 | .16* | – | | | | | | | | |
| 3. Work-to-family conflict (H-W2) | 3.35 | 1.57 | .17* | .05 | – | | | | | | | |
| 4. Family-to-work conflict (H-W2) | 2.57 | 1.24 | .14* | –.03 | .43*** | – | | | | | | |
| 5. Work-to-family conflict (W-W2) | 2.71 | 1.53 | .08 | .05 | –.09 | .13 | – | | | | | |
| 6. Family-to-work conflict (W-W2) | 2.15 | 1.12 | .21** | .09 | .04 | .22** | .35*** | – | | | | |
| 7. Marital quality (H-W1) | 6.73 | .95 | –.13* | –.02 | –.19** | –.22** | –.07 | –.34*** | – | | | |
| 8. Marital quality (W-W1) | 6.66 | 1.05 | .04 | –.04 | –.01 | –.17* | –.17* | –.31*** | .43*** | – | | |
| 9. Marital quality (H-W3) | 6.41 | 1.10 | –.12 | –.01 | –.31*** | –.36*** | –.12 | –.24** | .52*** | .28*** | – | |
| 10. Marital quality (W-W3) | 6.29 | 1.33 | –.05 | .04 | –.14 | –.19* | –.05 | –.16* | .36*** | .31*** | .57*** | – |
| Covariates | | | | | | | | | | | | |
| 11. Marital duration | 13.41 | 9.48 | –.05 | –.06 | .01 | .11 | .01 | .14* | –.10 | –.11 | –.26*** | –.32*** |
| 12. Cohabiting before marriage ^a | .68 | – | –.06 | .08 | –.01 | .02 | .01 | .00 | .01 | .04 | –.08 | –.04 |
| 13. Age (H) | 29.59 | 3.32 | .11 | .06 | .07 | .07 | .07 | .15* | –.08 | –.08 | –.18** | –.13 |
| 14. Age (W) | 28.05 | 2.57 | .11 | .01 | .11 | .05 | .02 | .13 | –.09 | –.10 | –.28*** | –.23** |
| 15. Education (H) | 5.16 | .84 | .12 | .19* | .06 | .02 | .04 | .10 | –.02 | .05 | .06 | .08 |
| 16. Education (W) | 5.20 | .83 | .10 | .11 | .03 | –.02 | .10 | .08 | –.04 | –.08 | .07 | .09 |
| 17. Income (H) | 8.61 | 6.32 | .15 | .00 | .18* | .11 | .08 | .12 | –.05 | .04 | –.09 | –.02 |
| 18. Income (W) | 5.94 | 3.92 | –.06 | –.03 | .10 | .05 | .001 | –.08 | .09 | .08 | –.04 | –.11 |
| 19. Parental status ^b | .39 | – | .04 | .03 | .05 | .00 | –.14* | –.05 | –.10 | –.11 | .00 | –.18* |
| 20. Item related to WFC (H-W1) | 1.60 | .67 | .18** | .03 | .45*** | .23** | .003 | .11 | –.18** | –.01 | –.29*** | –.17* |
| 21. Item related to FWC (H-W1) | 1.76 | 1.00 | .23*** | .12 | .03 | .07 | .10 | .03 | –.07 | –.03 | –.09 | .02 |
| 22. Item related to WFC (W-W1) | 1.45 | .66 | .09 | –.01 | –.11 | .01 | .37*** | .28*** | –.16* | –.20** | –.25** | –.11 |
| 23. Item related to FWC (W-W1) | 1.80 | 1.04 | .10 | .13* | .09 | .06 | .03 | .29*** | –.07 | –.16* | –.15* | –.07 |

Note. *n* = 240 couples. H = husbands, W = wives, W1 = Wave 1, W2 = Wave 2, W3 = Wave 3, WFC = work-to-family conflict; FWC = family-to-work conflict. Composite scores for work family conflict and marital quality were used for descriptive analyses and bivariate correlation analyses

^a Cohabiting before marriage is a binary variable (0 = not cohabiting before marriage; 1 = cohabiting before marriage), and the mean column indicates the proportion of couples who cohabited together before marriage. ^b Parental status is a binary variable (0 = no child by Wave 3; 1 = having child(ren) by Wave 3), and the mean column indicates the proportion of couples who had child(ren) by Wave 3

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

covariates, indicating the necessity of controlling for these covariates (i.e., marital duration, husbands’ and wives’ age, monthly income, educational level, premarital cohabitation status, parental status, marital quality at Wave 1, WFC at Wave 1, and FWC at Wave 1).

We found that the model depicted in Fig. 1 adequately fits the data: $\chi^2(1440) = 2311.99, p < .001$ (RMSEA = .05 with 90% CI [.046, .054], CFI = .91, SRMR = .06). For associations from traditional gender ideology to marital quality, we did not find any significant associations. As such, no evidence was found in support of Hypothesis 1 (i.e., husbands’ and wives’ traditional gender ideology would interact in predicting husbands’ and wives’ marital quality).

For associations from traditional gender ideology to work family conflict, husbands’ stronger endorsement of traditional gender ideology at Wave 1 was associated with higher levels of their own WFC at Wave 2 ($b = .24, p = .039, \beta = .14$) and higher levels of wives’ FWC at Wave 2 ($b = .25, p = .004, \beta = .20$). As such, Hypothesis 2a was partially supported such that husbands’ stronger endorsement of traditional gender ideology at Wave 1 was associated with higher levels of their own WFC at Wave 2 ($b = .24, p = .039, \beta = .14$), but wives’ stronger endorsement of traditional gender ideology at Wave 1 did not predict their FWC. However, husbands’ stronger endorsement of traditional gender ideology at Wave 1 was associated with higher levels of wives’ FWC at Wave 2 ($b = .25, p = .004, \beta = .20$). Moreover, no evidence was found for Hypothesis 2b

(i.e., stronger endorsement of traditional gender ideology was related to husbands’ FWC and wives’ WFC).

Further, husbands’ traditional gender ideology at Wave 1 interacted with wives’ traditional gender ideology at Wave 1 in predicting husbands’ FWC ($b = -.30, p = .008, \beta = -.19$). We then followed the common criterion to calculate the simple slope of husbands’ traditional gender ideology at Wave 1 on husbands’ family-to-work conflict at Wave 2. Among couples in which the score of wives’ traditional gender ideology at Wave 1 is 1 SD above the mean (i.e., high), husbands’ traditional gender ideology at Wave 1 was not associated with their own FWC at Wave 2 ($b = -.07, p = .602, \beta = -.06$). Among couples in which the score of wives’ traditional gender ideology at Wave 1 is 1 SD below the mean (i.e., low), husbands’ stronger endorsement of traditional gender ideology at Wave 1 was associated with higher levels of their own FWC at Wave 2 ($b = .44, p = .002, \beta = .33$).

For associations from work family conflict to marital quality, only one significant pathway emerged. As such, partial evidence was found for Hypothesis 3 such that higher levels of husbands’ FWC at Wave 2 ($b = -.14, p = .031, \beta = -.15$) were associated with lower levels of their own marital quality at Wave 3; husbands’ WFC did not predict their own or wives’ marital quality; wives’ WFC or FWC did not predict either husbands’ or wives’ marital quality.

With respect to the mediating roles of husbands’ and wives’ WFC and FWC in the interactive effects of husbands’

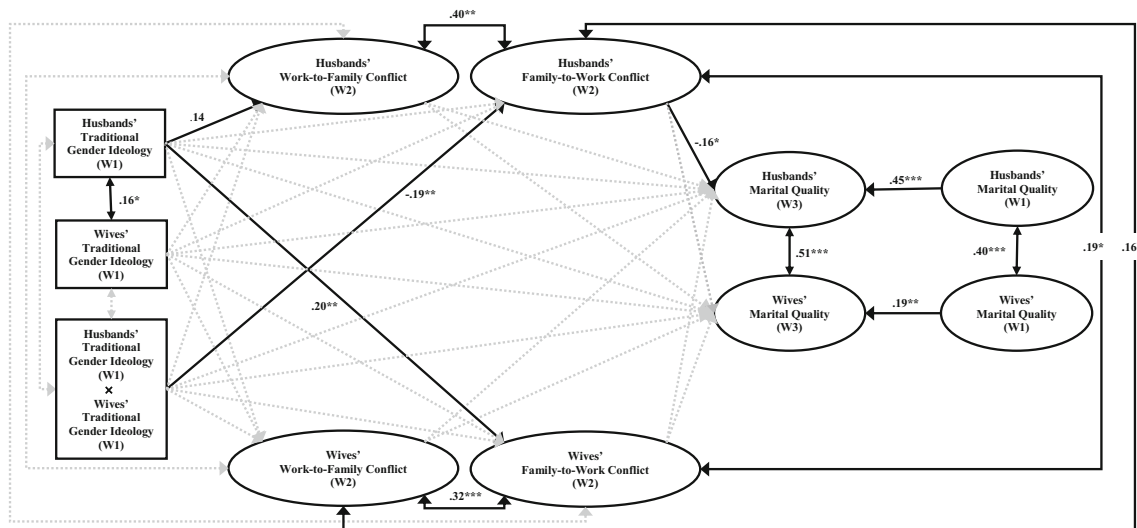


Fig. 1 Traditional gender ideology, work family conflict, and marital quality among Chinese dual-earner couples ($n = 240$ couples). Covariates were items related to husbands’ and wives’ work-to-family conflict and family-to-work conflict at wave 1, marital duration, cohabitation before marriage, parental status, as well as husbands’ and wives’ age, education, monthly income. W1 = wave 1, W2 = wave 2, and W3 = wave 3. R^2 s for endogenous variables in the present study were .19 for husbands’ work-to-family conflict at wave 2, .06 for husbands’ family-to-work conflict at wave 2, .10 for wives’ work-to-family conflict at wave 2, and .15 for wives’ family-to-work conflict at wave 2, .48 for husbands’

marital quality at wave 3, and .23 for wives’ marital quality at wave 3. Standardized coefficients are presented in the figure. For clarity, predicting pathways/correlation lines (a) with $p > .05$ (two-tailed) are depicted with dash, gray lines (nonsignificant) and (b) with $p < .05$ (two-tailed) are depicted with solid, black lines (significant). Predicting pathways/covariance lines involving covariates are displayed in the on-line supplement (see Table 1s). The measurement part of the model is available in the online supplement (see Tables 2s and 3s). * $p < .05$. ** $p < .01$. *** $p < .001$

and wives' traditional gender ideology on marital quality (Hypotheses 4a and 4b), we first followed the common criterion to calculate the 95% bootstrapped CI for conditional indirect pathway (husbands' traditional gender ideology at Wave 1 → husbands' FWC at Wave 2 → husbands' marital quality at Wave 3) among couples in which wives' score of traditional gender ideology was 1 *SD* below the mean (i.e., low). Because zero was included in the 95% bootstrapped CI (i.e., [-.18, .000]), conditional indirect pathway among couples in which wives' score of traditional gender ideology is 1 *SD* below the mean is not statistically significant.

We then calculated the 95% bootstrapped CI for conditional indirect pathway (husbands' traditional gender ideology at Wave 1 → husbands' FWC at Wave 2 → husbands' marital quality at Wave 3) among couples in which wives' score of traditional gender ideology at an even lower level (i.e., 1.5 *SD* below the mean, another meaningful value based on an existing study; Brody et al. 2016). A significant indirect pathway emerged. That is, among couples in which wives' score of traditional gender ideology was 1.5 *SD* below the mean (i.e., very low), husbands' stronger endorsement of traditional gender ideology at Wave 1 was associated with lower levels of their own marital quality at Wave 3 via higher levels of their own FWC at Wave 2 ($ab = -.08$ with 95% bootstrapped CI [-.22, -.001], standardized $ab = -.06$). Based on Kenny's (2012) criteria, the two indirect effects were between small and medium in terms of effect size. Hypotheses 4a and 4b were partially supported such that the mediating effect of husbands' FWC was only present at low levels of wives' traditional gender ideology; husbands' WFC or wives' WFC or FWC did not serve as significant mediators.

Discussion

Using dyadic, longitudinal data from Chinese dual-earner couples in the early years of marriage, our study contributes to the literature by examining the complexity in the ways that traditional gender ideology and work family conflict shape the development of marital quality over time in a Chinese cultural context. Specifically, we revisited the association between traditional gender ideology and couple relationship quality by considering the interactive effects between husbands' and wives' traditional gender ideologies. We also tested the potential mediating role of work family conflict in such associations and made a distinction between work-to-family conflict and family-to-work conflict.

The most central finding of the present study is a moderated mediation pathway that among couples in which wives weakly endorsed traditional gender ideology, husbands' stronger endorsement of traditional gender ideology predicted lower levels of husbands' marital quality via higher levels of husbands' family-to-work conflict. Such findings shed some

light on the nuanced nature in which husbands' and wives' traditional gender ideologies may interact with each other in predicting changes in marital quality and the understudied processes through which such interactive effect may occur. Specifically, wives who weakly endorsed traditional gender ideology tend to invest more time and energy in the work spheres and also put more emphasis on work roles than wives who strongly endorsed traditional gender ideology (Carlson and Kacmar 2000; Gutek et al. 1991). Wives who weakly endorsed traditional gender ideology may also expect their husbands to actively undertake family responsibilities (Caughlin and Vangelisti 1999). Nevertheless, husbands who strongly endorsed traditional gender ideology tend to focus on work responsibilities and expect their wives to enact family roles (Greenstein 1996a).

The aforementioned discrepant expectations between husbands and wives may then induce husbands' family-to-work conflict for the following reason. In particular, because husbands who strongly endorsed traditional gender ideology took only a small portion of family responsibilities, wives who weakly endorsed traditional gender ideology may enact a series of demanding behaviors (e.g., complaining and nagging) to increase husbands' involvement in the family sphere (Caughlin and Vangelisti 1999; Greenstein 1996a). For husbands, such demanding behaviors may be regarded as evidence for wives' unwillingness to provide support for the fulfillment of their salient career goal. Given that perceived support from a partner plays a salient role in preventing experiences of work family conflict, husbands who strongly endorse traditional gender ideology may then complain that inadequate support from their wives has impeded their working roles (i.e., family-to-work conflict; Ho et al. 2013). Regarded as the cost to stay in couple relationships, family-to-work conflict experienced by husbands in turn diminishes marital quality (Voydanoff 2005).

In addition, we noted that husbands' stronger endorsement of a traditional gender ideology predicted higher levels of husbands' own work-to-family conflict and higher levels of their wives' family-to-work conflict. The pathway from husbands' traditional gender ideology to husbands' work-to-family conflict is consistent with the rational viewpoint (Carlson and Kacmar 2000; Gutek et al. 1991). Because traditional husbands tend to invest their resources in the work sphere, their time and energy to take family roles are likely depleted, which in turn may increase husbands' work-to-family conflict. The partner effect from husbands' traditional gender ideology to wives' family-to-work conflict indicates that husbands' beliefs and attitudes are particularly influential in Chinese marriage. Based on existing studies, when husbands strongly endorsed a traditional gender ideology and decided to focus on work responsibilities, wives may have to take on a majority of family responsibilities regardless of those wives' own attitudes and beliefs (Greenstein 1996a).

The large burden in the family sphere then renders it difficult for wives to adequately enact their work roles (i.e., high levels of family-to-work conflict) (Ho et al. 2013). Such salient roles of husbands' traditional gender ideology in shaping wives' work family conflict may reflect the still persistent patriarchal tradition in China that wives need to be submissive to husbands (Chen 2005).

It is also noteworthy that husbands' (rather than wives') work family conflict mediated the interactive effects between husbands' and wives' traditional gender ideology on marital quality. These findings may connect to the backlash in men's attitudes against the gender equality movement in China (Pimentel 2006). As we noted already, Chinese husbands nowadays are more involved in housework tasks (e.g., cooking and cleaning) than Chinese husbands in earlier generations (Pimentel 2006; Zhang 2017). Although Chinese are still responsible for most family responsibilities, their burden may have been somewhat relieved by husbands' increased involvement (Chesley and Flood 2017). Husbands, on the contrary, may feel stressed by the fact that they have to share more family responsibilities than their counterparts of the earlier generation (Pimentel 2006). Husbands' and wives' different reactions to gender equality may explain why WFC and FWC were more prevalent (paired $t = 3.28$, $p = .001$ for WFC; paired $t = 3.28$, $p = .002$ for FWC in the present study) and more detrimental among husbands than among wives. However, this explanation is speculative, and the gender difference in our findings still awaits replication.

Limitations and Future Research Directions

Some limitations should be noted. Couples in the present sample were in their early years of marriage and generally had higher levels of marital quality. Thus, our findings may not be generalizable to couples in other relationship stages and experiencing relationship distress. Moreover, couples in the present study lived in economically developed Chinese urban areas and had relatively higher levels of education and income than did the broader population (Beijing Bureau of Statistics 2011; National Bureau of Statistics of China 2012). In comparison to those living in economically underdeveloped areas with relatively low levels of education and income, couples in the present study might endorse weaker traditional gender ideology (Davis and Greenstein 2009). Therefore, generalizing our findings to the other groups should be made with caution, and investigations with more diverse samples are warranted.

Further, the data in the present study were collected exclusively via a self-report survey method, which may bring in shared method and shared informant variance biases and social desirability biases (Noller and Feeney 2004). Future studies may benefit from using multiple-method, multiple-informant designs. For example, the daily diary method might

be particularly appropriate for research in this field, given that the daily diary method can reduce retrospective biases and obtain a more accurate assessment of the average levels of key study constructs over a period of time (e.g., work family conflict, which tends to fluctuate on a daily basis) (Akçaboza et al. 2017; Bolger et al. 2000).

Lastly, significant associations identified in the present study were relatively sparse and small in terms of effect sizes, which may be due to our longitudinal design with autoregressive controls, our complicated model, as well as our modest sample size (associated with low statistical power to detect small effects). The cross-sectional designs that were used in the majority of previous studies in this field may have generated more biased and/or false positive findings than our longitudinal design, and moderate-to-large sized associations identified based on cross-sectional data typically get smaller (or even disappear) when using more rigorous longitudinal data (Maxwell et al. 2011). Moreover, we conducted a moderated mediation model with many freely estimated parameters. As we noted, moderation and mediation effects are typically small in effect sizes (for similar arguments, see Marsh et al. 2013; Zhao et al. 2010). The modest-sized sample in the present study may not have had enough statistical power to detect small-sized moderation and mediation effects. Nevertheless, findings in the present study await to be replicated by future studies with larger samples.

Practice Implications

The present study may inform practice in the following important ways. Specifically, we found that husbands' and wives' traditional gender ideologies interacted with each other to predict changes in work family conflict within 1 year as well as changes in marital quality within 2 years. As such, we suggest partners openly discuss their gender ideology with each other during the early stage of their relationship. If there are discrepancies that the couples themselves cannot effectively resolve, the partners may benefit from seeking help from marriage and family therapists to reconcile their disagreements before they incur uncontrollable, escalated relational problems (Falconier 2013). Related to this point, marriage and family therapists should be able to (a) evaluate each partner's gender role ideology and realize how the two partners' gender role ideologies shape the way in which they negotiate work and family responsibilities; (b) help partners to reflect on the processes through which their gender ideology was developed; (c) challenge the ubiquity of attitudes and beliefs on gendered segregation between work and family responsibilities; and (d) encourage partners to readjust their gender ideologies and renegotiate their roles in both their work and family spheres (Hare-Mustin 1987; Kroska and Elman 2009).

In addition, it is necessary to help Chinese husbands and wives better manage their burdens in both their work and

family spheres. A potential solution may be to guarantee employees control over time and working schedules (Behson 2002; King et al. 2012). So long as employees can finish their work assignments, they should have the autonomy to decide when and where to work (e.g., working from home and making up missed work at night or weekends). Such flexibility can reduce work family conflict without impeding the working efficiency (Behson 2002).

Additionally, we found that Chinese husbands' stronger endorsement of a traditional gender ideology is related to worse outcomes of not only themselves (i.e., higher levels of husbands' work-to-family conflict) but also their wives (i.e., higher levels of wives' family-to-work conflict). Yet, it is noteworthy that Chinese husbands on average endorse stronger traditional gender ideology than their wives did (paired $t = 4.55, p < .001$ in the present study). Illuminated by these findings, efforts are needed to continue promoting Chinese men's endorsement of a less traditional gender ideology (for a similar argument, see All China Women's Federation and National Bureau of Statistics of China 2011). For example, an education program can provide each individual and family with awareness of the detrimental effects that accompany men's strong endorsement of a traditional gender ideology. Furthermore, policies (e.g., paid paternal leave) and education (e.g., programs that prepares men for housework, fatherhood, and childcare) are needed to increase men's willingness and capabilities to be involved with family responsibilities.

Conclusion

The results of the current study demonstrate that traditional gender ideology may play a critical role in shaping work family conflict and marital quality for Chinese dual-earner couples during the early stage of marriage. In particular, husbands' and wives' traditional gender ideology was found to work in conjunction with each other to predict husbands' marital quality through influencing the family-to-work conflict that husbands experienced. As such, our findings highlight the necessity to consider the interdependence between the two partners in a couple when (a) examining the implications of gender ideology for marital well-being and (b) working with couples who are bothered by incongruence in traditional gender ideologies between partners. In addition, work family conflict as a potential mediating mechanism may be a key focus of practice work aimed at assisting couples dealing with issues related to gender ideology.

Acknowledgements Preparation of this article was supported by: the Lang Summer Fellowship from the Francis McClelland Institute on Children, Youth, and Families and the Janet and Barry Lang Lab to Xiaomin Li; the funding from the National Natural Science Foundation of China (No. 31571157 and No. 31971017) to Xiaoyi Fang; and the funding from the Fundamental Research Funds for the Central

Universities (No. 2018NTSS06) to Nan Zhou and (No. 2019NTSS04) to Hongjian Cao.

Compliance with Ethical Standards Statement

Conflict of Interest The authors declare that they have no conflict of interest.

Ethical Approval The research was carried out in accord with APA ethical standards and within the terms of the institutional review board at the study's home institution.

Informed Consent For each couple and across all three waves of data collection, trained research assistants described the study and obtained informed consent from both partners.

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