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Family-Friendly for Her, Longer Hours for Him: Actor-Partner Model Linking Work-Family Environment to Work-Family Interference

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Supportive work-family environments are associated with lower levels of perceived work-to-family interference (WFI; Kelly et al., 2014), but we know little about the mechanisms underlying this linkage. Nor is much known about the larger family contexts within which these processes take place, including crossover effects of spouses' work on one another's WFI (Westman, 2001). This study utilized longitudinal data collected in home interviews with dual-earner couples to examine mechanisms through which a supportive work-family environment has implications for employees' and their spouses' WFI—with a focus on work demands, specifically hours and pressure, as potential mediators. Participants were married heterosexual couples (N = 194 dyads) with at least two children living at home; reflecting the demographics of their communities, they were almost all white and working/middle class. In separate home interviews wives and husbands reported on their work-family environment, work demands (work hours; work pressure) and their work-to-family interference one year later. Results of an Actor-Partner Interdependence Mediation Model revealed that more supportive work-family environments predicted less WFI for both employees and their spouses. The mechanisms underlying this association, however, differed by employee gender and type of effect (spillover to the employee or crossover to the spouse). Work demands served as a mediator for wives' (but not husbands') spillover (but not crossover). Wives' supportive work-family environments, however, were associated with husbands working longer hours. Results suggest that supportive work-family environments may be particularly beneficial for dual-earner families.

Keywords: Actor-Partner Mediation Model, work-to-family interference, work demands, work-family spillover, work-family crossover

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Work-to-family interference (WFI) is a form of interrole conflict whereby work demands and pressures conflict with family demands and pressures (Greenhaus & Beutell, 1985). In part due to societal-level changes, such as the increasing number of single mothers and dual-earner couples, difficulties balancing work and family demands have increased over time (Nomaguchi, 2009). This is problematic for families, given that research has found WFI is associated with reduced levels of marital and family satisfaction, higher levels of family related stress, poorer quality parent–child interactions, and children's behavioral problems (Amstad, Meier, Fasel, Elfering, & Semmer, 2011; Cinamon, Weisel, & Tzuk, 2007; Parcel & Menaghan, 1993). To help alleviate WFI and its effects, some workplaces have sought to increase levels of support for family responsibilities, and evidence has accumulated suggesting that supportive work-family environments have the potential to reduce WFI (Kelly et al., 2014). Yet, we know little about the *processes* through which supportive work-family environments have implications for either employees' *or* their spouses' WFI. The present study utilized longitudinal data collected from dual-earner couples to examine the mechanisms through which a supportive work-family environment may have implications for employees' and their spouses' WFI—with a focus on the roles of work hours and work pressure.

Theoretical Background

We grounded our study in the work-home resources model (ten Brummelhuis & Bakker, 2012) and family systems theory (Minuchin, 1985). The work-home resources model holds that personal resources link work and family domains. Work demands (e.g., long work hours, high pressure) can lead to negative home outcomes such as poor quality interaction with spouses by reducing personal resources including time, energy, and mood. Conversely, more resources at work such as a supportive environment can increase personal resources and subsequently lead to positive home outcomes. Therefore, this model led us to examine how employees'

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work environments and experiences may influence their own family experiences (termed *spillover* effects).

The family systems perspective, however, asserts that individuals within a family system are interdependent and can be influenced by larger contexts, including workplaces (Minuchin, 1985). Therefore, work context effects may also "cross over" to an employee's spouse and ultimately affect his or her role performances, attitudes, and emotions (Bolger & Kelleher, 1993; Westman, 2001). For example, an employee who experiences work stress may exhibit high levels of negative affect after returning home from work (spillover), and this work stress may cross over through the employee's negative interactions with the spouse and increase the spouse's negative affect as well. A majority of research on the connections between work and family focuses on negative spillover or crossover from strain and stress at work (Westman, 2001), though research finds that positive work experiences, such as a positive interaction between employees, may also spill over to the home and family (Lawson, Davis, McHale, Hammer, & Buxton, 2014). The present study extends this work by examining the mechanisms through which a *positive* work-family environment may have implications for the experiences of WFI by employees *and* their spouses.

Work-Family Environment and Work-to-Family Interference

Thompson, Beauvais, and Lyness (1999) define work-family environment as the "shared assumptions, beliefs, and values regarding the extent to which an organization supports and values the integration of employees' work and family lives (p. 394)." The work-family environment includes three components: organizational time demands, perceived negative career consequences, and managerial support. Time demands refer to the organizational expectations about whether employees should place higher priority on work, relative to family. Less supportive work-family environments are often perceived as having high time demands, which may result in employees working long hours and taking work home. Employees working in less supportive work-family environments may also perceive that spending time on family related responsibilities or utilizing work-family benefits may result in negative career consequences, such as negative performance evaluations, fewer promotions, and lower wage increases. Managerial support refers to whether managers are understanding of and sensitive to employees' family responsibilities (Thompson et al., 1999).

A body of correlational research studying individual employees has found spillover effects of employees' supportive work-family environments on lower levels of WFI reported by both single and married men and women in a variety of occupations (Allen, 2001; Fiksenbaum, 2014; Ford, Heinen, & Langkamer, 2007; Hill, 2005; Kossek, Pichler, Bodner, & Hammer, 2011; Matias et al., 2017; Thompson et al., 1999). Although most research used cross-sectional designs and examined concurrent associations, one experimental study that implemented a workplace intervention to improve the work-family environment found reduced levels of WFI among employees (Kelly et al., 2014).

Despite limited research on positive crossover effects of employees' work-family environment on spouses' role performances, attitudes, and emotions, Westman (2001) argued that positive work experiences can also cross over and positively impact spouses' well-being and experiences with work and family. A supportive work-family environment, for example, may allow an individual to take on more family related responsibilities—ultimately reducing the levels of WFI experienced by his or her spouse. Using a sample of dual-earner, heterosexual couples with preschool aged children, one study found that wives' perceptions of workplace family support, defined as support received from work for parental responsibilities, predicted husbands' reports of lower levels of WFI one year later, whereas husbands' workplace family support was unrelated to wives' WFI (Matias et al., 2017). In addition, Demerouti (2012) found that when employees experienced more social support at work, their partners also reported more home resources, including home autonomy, social support, and time to develop strengths. These findings documented a direct crossover pattern, suggesting that employees' workplace support can reduce their spouses' WFI.

A complementary pattern also may be possible, however, such that employees' work resources increase some elements of spouses' WFI. This pattern may emerge when a supportive work-family environment enables employees to take on more of the family responsibilities, freeing up spouses to invest more time and energy in their paid employment. Qualitative research shows that couples consciously make work decisions together in order to meet family demands. A couple may decide, for example, that one partner will pursue a more time-intensive career, while the other takes a less demanding job to leave more time for family responsibilities. These decisions may change over time as couples switch who is more career- and family oriented (Becker & Moen, 1999). This pattern is also supported by quantitative research showing that couples desynchronize their work schedules (e.g., working different shifts) in order to avoid childcare costs (Carriero, Ghysels, & Klaveren, 2009; Täht & Mills, 2012). In addition, results from an intervention study showed that increasing the level of workplace support for families resulted in increases in employees' perceptions of work schedule flexibility for family yet decreases in spouses' perceptions of work schedule flexibility for family (Lee, Lawson, & Damaske, 2017). The authors speculated that spouses may have been freed up to take on more work responsibilities—or that social comparisons to their partners' workplace support led them to evaluate their own work experiences as more demanding.

Mechanisms Linking Work-Family Environment and Work-to-Family Interference

Despite the established linkage between employees' work-family environment and their own WFI (i.e., the spillover effect), little research has examined the mechanisms underlying this linkage. The few prior studies have focused on personal resources, including feelings of control (Thomas & Ganster, 1995), and home resources, such as parenting satisfaction of mothers (Matias et al., 2017) as potential mediators. We could find no studies, however, that focused on characteristics of work that may explain this linkage. Importantly, identifying malleable work characteristics that explain the link between work-family environment and WFI may have direct implications for developing workplace policies and practices that support workers and their families.

For example, employees in a supportive work-family environment may experience reduced demands at work, including fewer or more flexible work hours and/or lower levels of work pressure—defined as "the extent to which jobs are characterized by deadlines,

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demands, and fast pace" (Crouter, Bumpus, Maguire, & McHale, 1999, p. 1453). When employees feel that they are expected to prioritize their work over their family time and that spending time on family related responsibilities may result in negative career consequences, they may feel the need to work overtime or take work home and thus experience more work pressure. Consistent with such a process, work hours and work pressure have been linked to higher levels of WFI (Byron, 2005; Grzywacz & Marks, 2000). Therefore, in this study we tested whether work demands, including work hours and work pressure, mediated the link between employees' work-family environment and their own WFI.

Even less research has focused on the mechanisms linking employees' supportive work-family environment to their spouses' WFI. One study found that wives (but not husbands) who worked in a supportive work-family environment reported higher levels of parenting satisfaction, which in turn was linked to husbands' lower work-family conflict—a form of WFI (Byron, 2005). In other words, spillover effects of wives' supportive work-family environment on their parenting satisfaction crossed over to lessen husbands' work-family conflict, possibly because husbands were freed up from family demands (Matias et al., 2017).

In addition to family responsibilities, spouses' work demands also may be impacted by employees' work-family environment. As noted, an employee's work-family environment may influence the spouse's choices about career and work, including their choice of job and job tasks, overtime hours worked, and decisions to put work responsibilities over family responsibilities. Given past research demonstrating that couples often make work decisions together in order to meet family demands (Becker & Moen, 1999) and that couples with children may try to desynchronize their work schedules (Carriero et al., 2009; Täht & Mills, 2012), an employee's supportive work-family environment may allow his or her spouse to take on jobs or work tasks associated with longer work hours and more work pressure. Accordingly, in this study we examined whether employees' own or their spouses' work hours and/or pressure (i.e., work demands) accounted for the crossover effect of employees' work-family environment on spouses' WFI.

The Role of Gender

We also tested whether the linkages between spouses' supportive work environments, work demands and WFI differed for wives versus husbands. We grounded this study goal in research showing that women are more likely to experience positive work-family spillover, compared to men (Grzywacz & Marks, 2000), and thus may be more likely to benefit from supportive work-family environments. Gender may also play a role in the crossover process. For instance, husbands have proven more susceptible to crossover effects compared to wives (Matias et al., 2017), as evident in findings that husbands engage in more child-related activities when wives work longer hours and in less family friendly environments (Roeters, Van Der Lippe, & Kluwer, 2010). Although these gendered processes are not well-understood, they may be a function of family gender role norms. Specifically, men's family roles are less scripted than women's and have changed more over time (Wall, 2007). Therefore, men's work-family roles and responsibilities may be more prone to change as a result of contextual influences, including their spouses' work.

The Present Study

In sum, this study utilized data from heterosexual dual-earning married couples with children to (a) examine whether and how a supportive work-family environment is linked to employees' and their spouses' WFI; (b) test whether work hours and/or pressure mediate the links between workplace support and WFI; and (c) examine whether spouse gender moderates these processes (see Figure 1). We applied a dyadic analytic approach to examine the direct effects of wives' and husbands' work-family environment on their own and their spouses' WFI and test the indirect effects through the potential mediators, work hours and work pressure. Based on the work-home resources model, we expected that employees' supportive work-family environment would negatively predict their own levels of WFI and that this longitudinal association would be mediated by employees' own work hours and pressure. Given little past research and theory on mechanisms linking the crossover of work-family environments to partner WFI, our tests of the direct and indirect links between employees' work-family environment and their spouses' level of WFI were exploratory. Finally, given that men's family roles are less scripted than women's, we expected that women would be more susceptible to spillover effects and men, to crossover effects.

Method

Participants and Procedure

The data were drawn from the seventh and eighth years (referred to as Times 1 and 2 hereafter) of a larger longitudinal study exploring family relationships and youth development, when the measures of interest were collected. To address the study's larger goals, we recruited families that included a wife and husband who were always-married and employed at least part time and who had least two children living at home, including a firstborn child in the fourth or fifth grade at baseline. Families were recruited via letters sent home from schools in 16 districts of a northeastern state, and interested families returned postcards to the research team. The number of families that fulfilled the recruitment criteria but failed

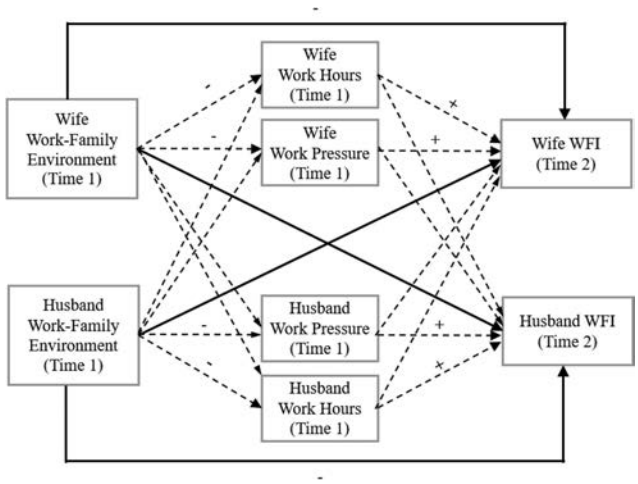


Figure 1. Research Questions.

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to respond was unknown, but over 90% of families that returned postcards and were eligible agreed to participate (total $N = 203$ families). All procedures were approved by the university's Institutional Review Board (protocol number: PRAMS00031164). Interviews began with informed consent/assent procedures, and families received a $200 honorarium each year.

The present study included families ($N = 194$) that completed home interviews conducted at Times 1 and/or 2. *T* tests and chi-square analyses indicated that families included in this study did not differ from those not included on demographic characteristics (child gender, family income, family size, parent age, and education). The study sample included almost exclusively European American families living in small cities, towns, and rural communities. On average, wives' education was 14.60 years ($SD = 2.21$) and husbands' education was 14.79 ($SD = 2.50$). Mean ages of wives and husbands at Time 1 were 43.22 ($SD = 3.97$) and 45.53 ($SD = 5.09$) years, respectively. Wives' job prestige averaged 50.24 ($SD = 13.05$), and husbands, 50.44 ($SD = 12.61$), scores that correspond to jobs such as managers and administrators and health diagnosing practitioners (Nakao & Treas, 1994). The median household income was $75,000 ($SD = $45,925).

Measures

Participants reported on their work-family environment, work hours, and work pressure at Time 1, and their WFI at Time 2.

Work-family environment. Spouses completed the Work-Family Culture Scale (Thompson et al., 1999), which consists of 20 items encompassing managerial support (e.g., "In this organization employees are encouraged to strike a balance between their work and family lives"), career consequences (e.g., "To turn down a promotion or transfer for family-related reasons will seriously hurt one's career progress in this organization;" reverse-coded), and organizational time demands (e.g., "Employees are often expected to take work home at night and/or on weekends;" reverse coded). Items were rated on a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*), and ratings were averaged, with higher scores reflecting more supportive work-family environment. The scores on this scale have been found to have adequate psychometric properties (Thompson et al., 1999). Cronbach's alpha was .91 for wives and .88 for husbands.

Work demands. To assess *work hours*, participants reported the number of hours they spent at work and on work-related activities at home per week, which were summed to a total weekly work hour score for each participant and divided by 10 for scaling purposes. To assess *work pressure*, participants completed the Work Pressure subscale of the Work Environment Scale (Moos, 1986). Participants responded to 9 items (e.g., "There always seems to be an urgency about everything") using a 4-point scale (1 = *very true*, 4 = *very untrue*). Items were reverse-coded and averaged so that higher scores reflected more work pressure. Scores on the Work Pressure subscale have been found to have adequate reliability (Moos, 1986). Cronbach's alpha was .85 for wives and .80 for husbands.

Work-family interference (WFI). Wives and husbands completed a 20-item scale (Small & Riley, 1990) that encompasses work's interference with marital relationships (e.g., "My job keeps me from spending time with my spouse"), parent–child relationships (e.g., "When I get home from work I often do not have the energy to be a good parent"), leisure ("e.g., "My job makes it difficult for me to enjoy my free time outside of work"), and home management (e.g., "My job makes it difficult for me to get my household chores done"). Participants responded to these items using a 5-point scale (1 = *strongly disagree*, 5 = *strongly agree*), and items were reverse-coded and averaged so that higher scores reflect more negative work-family interference. Scores on this scale have been found to have adequate psychometric properties (Small & Riley, 1990). Cronbach's alpha was .91 for wives and .93 for husbands.

Covariates included wives' and husbands' Time 1 age and level of education (12 = high school graduate; 13 = high school graduate plus vocational/technical/job training; 14 = some college but no degree; 15 = associate's degree; 16 = bachelor's degree; 17 = some education after undergraduate degree but no advanced degree; 18 = master's degree; 19 = professional degree, e.g., medicine, law; 20 = Ph.D.). We also controlled for number of children at home given its association with couple relationship and family dynamics (Stanik, McHale, & Crouter, 2013). In addition we included wives' and husbands' depressive symptoms and marital satisfaction at Time 1 to account for potential effects of spouses' psychological well-being and marital relationship experiences on the association between work-family environment and WFI. *Depressive symptoms* were assessed using a 12-item version of the Center for Epidemiological Studies Depression (CES-D) scale (Radloff, 1977) on which spouses rated how frequently they experienced each symptom in the previous week (e.g., "feeling sad") using a 4-point scale (1 = *rarely*, 4 = *most or all of the time*). Items were summed, with higher scores reflecting more depressive symptoms. Cronbach's alpha was .83 for wives and .82 for husbands. Marital satisfaction was assessed using the Couple Relationship Domains Questionnaire (Huston, McHale, & Crouter, 1986). Spouses individually rated their satisfaction with 8 marriage domains (e.g., communication, division of child care) using a 9-point scale (1 = *extremely dissatisfied*, 9 = *extremely satisfied*), and ratings were averaged, with higher scores reflecting higher marital satisfaction. Cronbach's alpha was .88 for both wives and husbands.

Analytic Strategy

To examine employees' work-family environment as a predictor of their own and their spouses' WFI and the potential mediating roles of work hours and work pressure, we applied the Actor-Partner Interdependence Mediation Model (APIMeM; Ledermann, Macho, & Kenny, 2011). More generally, the Actor-Partner Interdependence Model (APIM; Kenny, Kashy, & Cook, 2006) allows for simultaneous examination of both actor effects (i.e., spillover effects of employees' work contexts and experiences on their own outcomes) and partner effects (i.e., crossover effects of employees' work contexts and experiences on their spouse's outcomes) in the same model while accounting for interdependencies in dyadic data. APIMeM is an extension of APIM that allows testing of mediation. We estimated the models via structural equation modeling (Ledermann & Kenny, 2017) using the "lavaan" package in R 3.3.2 (Rosseel, 2012). We used full information maximum likelihood (FIML) to handle missing data (Arbuckle, 1996). Model goodness-of-fit was evaluated using Hu and Bentler's (1999) criteria: (a)

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nonsignificance in the result of the chi-squared test; (b) the root mean square error of approximation (RMSEA) less than or equal to .06; (c) the root mean squared residual (SRMR) less than or equal to .08; and (d) the comparative fit index (CFI) and the Tucker-Lewis index (TLI) close to or greater than .95.

We tested the direct effects of work-family environment on WFI and the indirect effects with mediation by work hours and/or work pressure simultaneously within the APIMeM model (see Figure 1). We obtained the final, most parsimonious model by applying a stepwise modeling procedure: We conducted model comparisons sequentially using chi-squared difference tests and retained the more parsimonious model when the fit of the model did not reduce significantly (Le, Fredman, & Feinberg, 2017). First, we tested a fully saturated model by freely estimating all paths, including covariances. Second, we tested gender moderation by comparing models in which the paths for wives and husbands were constrained to be equal versus freely estimated. We constrained the paths that were not significantly moderated by gender to be equal between wives and husbands for parsimony (Le et al., 2017). Finally, we evaluated mediation using bootstrapping within the APIMeM framework with 5,000 samples (Preacher & Hayes, 2008) to test the indirect effects of work-family environment on WFI through work hours and pressure for wives and husbands. Age, education, number of children, and spouses' depressive symptoms and marital satisfaction were initially included as covariates, but because they did not affect the results, they were removed from the final model to facilitate assimilation of the results. Results from models with covariates are available from the corresponding author upon request.

Results

Descriptive statistics for study variables are shown in Table 1. On average, wives and husbands reported moderate levels of work-family environment support, slightly above the midpoint of the of the 7-point scale. They were employed full-time (more than 35 hr per week) on average, though there was considerable variation, and a paired *t* test revealed a gender difference in work hours, $t(2, 177) = -1.19$, $p < .001$, with wives working significantly fewer hours per week than their husbands. Further, levels of work pressure were slightly above the midpoint of the 4-point scale, and levels of WFI were at about the midpoint of the 5-point scale, on average. Although no mean gender differences were found in work-family environment, work pressure, or WFI, variance equality tests revealed significant differences between wives and husbands in work-family environment, $F(df = 152) = 1.68$, $p = .01$, and work pressure $F(df = 174) = 1.70$, $p < .001$, indicating significantly larger variation among wives on these variables but not on work hours or WFI. Significant bivariate correlations between study variables suggested that both the direct and indirect effects of work-family environment on WFI merited further examination.

Direct Effects of Work-Family Environment on WFI

The final APIMeM model is presented in Figure 2. Fit indices suggested that the model fit the data well: $\chi^2(11) = 12.82$, $p = .30$; RMSEA = .03; SRMR = .04; CFI = .99; and TLI = .97. Significant direct actor and partner effects emerged for wives' and husbands' Time 1 work-family environment on their Time 2 WFI, accounting for the mediation effects of work hours and work pressure. That is, for both wives and husbands, more supportive work-family environments were linked to lower levels of their own and their spouses' perceptions of WFI, indicating the existence of both spillover and crossover effects. Test of gender moderation on these direct effects revealed no difference in either actor ($\Delta\chi^2(1) = .01$, $p = .94$) or partner ($\Delta\chi^2(1) = 1.36$, $p = .24$) effects.

Mediation by Work Hours and Work Pressure

Also, as displayed in Figure 2, for wives, there were negative actor effects from work-family environment to both work hours and pressure, and positive actor effects from both work hours and pressure to WFI. For husbands, however, the actor effect of work-

Table 1
Means (M), Standard Deviations (SD), and Correlations for Wives' and Husbands' Study Variables and Covariates

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Wife work-family environment	—																
2. Husband work-family environment	.02	—															
3. Wife work hours	−.31***	−.04	—														
4. Husband work hours	.18*	.07	.02	—													
5. Wife work pressure	−.49***	−.05	.39***	.01	—												
6. Husband work pressure	.00	−.21**	−.07	.31***	.02	—											
7. Wife WFI	−.41***	−.18*	.44***	−.08	.27***	−.09	—										
8. Husband WFI	.05	−.18*	.04	.16*	.02	.30***	.08	—									
9. Wife age	−.05	.04	.06	−.00	.10	.16*	−.09	−.01	—								
10. Husband age	.00	−.16†	.14†	−.04	.05	.10	.00	.05	.69***	—							
11. Wife education	−.05	.06	.21**	.09	.17*	.00	.06	.06	.37***	.29***	—						
12. Husband education	−.01	.10	−.06	.15*	.03	.09	−.15*	−.02	.53***	.36***	.54***	—					
13. Number of children	.05	−.01	−.24***	.02	−.12†	−.02	−.18*	.05	−.13†	−.14†	.00	.01	—				
14. Wife depressive symptoms	−.17*	−.04	−.09	−.12	.03	−.05	.14†	.18*	−.15*	−.07	−.13†	−.10	−.04	—			
15. Husband depressive symptoms	.04	−.17*	−.10	−.01	−.16*	.12	−.09	.29***	−.17*	−.07	−.08	−.12	.04	.25***	—		
16. Wife marital satisfaction	.18*	.03	−.04	−.00	.02	−.01	−.15*	−.20**	.03	−.02	.06	.12	.09	−.38***	−.24**	—	
17. Husband marital satisfaction	.08	.09	.05	−.03	.06	−.02	−.01	−.10	.07	.02	.07	.05	−.03	−.31***	−.42***	.53***	—
M	4.88	4.81	**3.58**	**4.79**	2.73	2.80	2.48	2.57	**43.22**	**45.53**	14.60	14.79	2.52	17.79	17.45	**5.16**	**5.40**
SD	.93	.72	1.59	1.49	.60	.46	.71	.74	3.97	5.09	2.21	2.50	.93	4.94	4.63	1.19	1.01

Note. Means in bold indicate significant differences between husbands and wives based on paired *t*-tests, $p < .05$. Weekly work hour scores were divided by 10.
† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

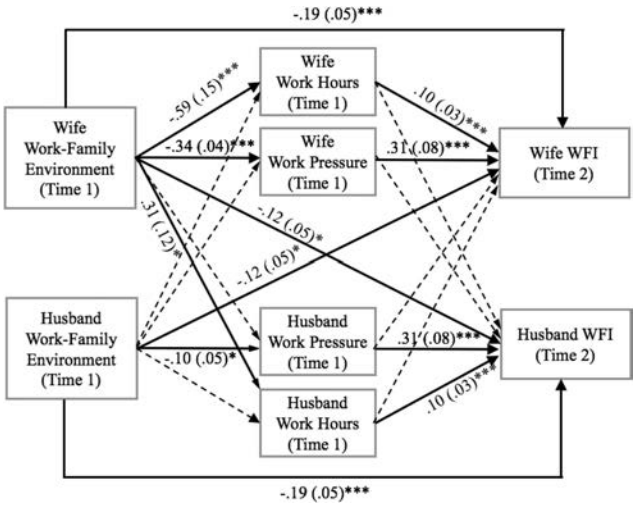


Figure 2. Results of final APIMeM model. * $p < .05$. ** $p < .01$. *** $p < .001$.

family environment was nonsignificant for work hours, but was negative and significant for work pressure, and both work hours and pressure had positive actor effects on WFI. The only significant partner effect on the mediators was from wives' work-family environment to husbands' work hours such that wives' supportive work-environments were associated with husbands working longer hours. No partner effect was observed linking husbands' work-family environment to wives' work hours or work pressure.

Tests of gender moderation effects using the chi-squared difference comparison revealed a gender difference in the actor effect of work-family environment on work pressure, $\Delta\chi^2(1) = 11.27$, $p < .001$, such that the negative link between work-family environment and work pressure was stronger for wives than for husbands. Further, the gender difference in the partner effect from work-family environment to work hours reached trend level, $\Delta\chi^2(1) = 3.66$, $p = .055$. In the final model, the link between wives' work-family environment and husbands' work hours was positive and significant, but was nonsignificant for husbands' effects on wives' work hours. Nevertheless, there were no gender differences in the actor effects of either work hours, $\Delta\chi^2(1) = 1.04$, $p = .31$, or work pressure, $\Delta\chi^2(1) = .00$, $p = .95$ on WFI.

Given the actor and partner effects reported above, indirect actor effects (i.e., links between individuals' work-family environment and their own WFI through their own work hours and pressure) and indirect partner effects (i.e., actor work-family environment → partner work hours/pressure → actor WFI; partner work-family environment → actor work hours/pressure → actor WFI; and partner work-family environment → partner work hours/pressure → actor WFI; in total 6 indirect partner effect for each spouse) were tested using bias-corrected bootstrapping procedures. Results, shown in Table 2, revealed indirect actor effects linking work-family environment to WFI through both work hours and pressure for wives, evidence of partial mediation; for husbands, the indirect actor effect of work-family environment on WFI through work pressure reached trend level. Out of the six indirect partner effects tested, one emerged but only reached trend level: Wives' supportive work-family environment predicted higher levels of husbands' WFI via husbands' longer work hours.

Table 2
Actor and Partner Effects of Work-Family Environment on Individuals' and Spouses' WFI Through Work Demands, Based on Bias-Corrected Bootstrapping (5,000 Iterations)

Paths		*B*	95% CI	*p*
Work Hours as the Mediator				
Wife work-family environment → Wife work hours→ Wife WFI	**= A → A**	**−.06**	**−.11, −.02**	**.01**
Husband work-family environment → Husband work hours → Husband WFI	= A → A	.03	−.01, .08	.22
Wife work-family environment → Husband work hours → Wife WFI	= P → P	.00	−.01, .02	.82
Husband work-family environment → Wife work hours → Husband WFI	= P → P	−.00	−.01, .01	.92
Wife work-family environment → Wife work hours → Husband WFI	= A → P	−.00	−.03, .03	.80
Husband work-family environment → Husband work hours → Wife WFI	= A → P	.00	−.01, .02	.84
Wife work-family environment → Husband work hours → Husband WFI	= P → A	.03	.00, .08	.08
Husband work-family environment → Wife work hours → Wife WFI	= P → A	−.01	−.05, .03	.69
Work Pressure as the Mediator				
Wife work-family environment → Wife work pressure → Wife WFI	**= A → A**	**−.10**	**−.16, −.05**	**.00**
Husband work-family environment → Husband work pressure → Husband WFI	= A → A	−.03	−.07, .00	.09
Wife work-family environment → Husband work pressure → Wife WFI[y]	= P → P	−.00	−.01, .01	.91
Husband work-family environment → Wife work pressure → Husband WFI[y]	= P → P	−.00	−.01, .01	.91
Wife work-family environment → Wife work pressure → Husband WFI	= A → P	.03	−.02, .08	.23
Husband work-family environment → Husband work pressure → Wife WFI	= A → P	.01	−.01, .03	.35
Wife work-family environment → Husband work pressure → Husband WFI[z]	= P → A	.00	−.02, .02	.88
Husband work-family environment → Wife work pressure → Wife WFI[z]	= P → A	.00	−.02, .02	.88

Note. Bold indicates a significant effect. *B* = unstandardized coefficients; CI = confidence interval; A = actor effect; *p* = partner effect. A → A represents the actor effect from the work-family environment to the actor's work demand mediator, followed by the actor effect from the mediator to the actor's WFI; P → P represents the partner effect from the actor's work-family environment to the partner's mediator, followed by the partner effect from the partner's mediator to the actor's WFI. A → P represents the actor effect from the actor's work-family environment to the actor's mediator, followed by the partner effect from the actor's mediator to the partner's WFI; P → A represents the partner effect from the actor's work-family environment to the partner's mediator, followed by the actor effect from the partner's mediator to the partner's WFI. Indirect effects marked by [yz] were constrained to be the same across wives and husbands.

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Discussion

In this study we examined the links between supportive work environments and employees' and their spouses' WFI, including the mechanisms through which a supportive work-family environment may have its impacts and the role of gender in these processes. The results support the tenets of the work-home resources model (ten Brummelhuis & Bakker, 2012) with evidence that resources at work—namely a supportive work-family environment—is associated with reduced WFI. In addition, the results support the tenets of a family systems perspective (Minuchin, 1985) in that external influences from work had implications for both employees and their spouses, and evidence emerged of reciprocal influence processes in the couple relationship. Our examination of the mechanisms through which work-family support is linked to WFI and the role of gender revealed important nuances in these linkages, however, and highlight the complexity of the work-family system: the mediating effects of work demands differed depending on gender of the employee and type of effect (spillover or crossover). We elaborate on these patterns below and consider their implications for future research on work-family linkages.

Work-Family Environment and Employees' Work-to-Family Interference

Consistent with previous findings (Allen, 2001; Hill, 2005; Fiksenbaum, 2014; Ford et al., 2007; Kelly et al., 2014; Kossek et al., 2011; Matias et al., 2017; Thompson et al., 1999), we found that more supportive work-family environments were associated with lower levels of WFI for both wives and husbands. As noted, however, the mechanisms underlying this association differed by gender. For wives, more supportive work-family environments had a significant indirect effect on WFI through their reduced work hours and pressure. Although bivariate associations were evident for husband's work pressure (a supportive work-family environment predicted less work pressure; less work pressure predicted lower levels of WFI), the indirect effect only reached trend level.

The somewhat different patterns for wives and husbands may have emerged because the negative link between work-family environment and work pressure was stronger for wives than for husbands, consistent with the idea that spillover effects of work are stronger for women. In contrast to women's scripted activities in the home, men's roles are more scripted in the workplace than women's—including because of their role as the breadwinner of the family (Cha & Thebaud, 2009). The descriptive data in the current study on work demands support this idea in part, with men showing significantly less variability in work pressure and work family environment than women. In addition, past research finds that, on average, women spend more time engaging in domestic work (childcare and housework) and less time in leisure activities at home, compared to men (Bianchi, Milkie, Sayer, & Robinson, 2000; Hochschild & Machung, 2012; Saxbe, Repetti, & Graesch, 2011). Therefore, domestic demands may cause strain for women and leave them particularly vulnerable to spillover from work. In contrast, men working in less work-friendly environments may be able to decompress and relax at home, leaving them less susceptible to spillover.

The pattern of results is also consistent with past research documenting parental satisfaction as a significant mediator of work-family linkages for mothers (Matias et al., 2017). We extended this literature by testing work characteristics as potential mediators. The results suggest that workplaces seeking to reduce employee WFI should identify strategies to limit work hours and work pressure—although the benefits for employees may differ depending on gender. To advance understanding of the family context of work-family linkages, future research also should adopt a dyadic modeling approach such as used here to explore other dimensions of both work and family experiences that may mediate work-family spillover and crossover and test the role of gender in these processes.

Work-Family Environment and Partners' Work-to-Family Interference

Consistent with evidence of positive crossover between spouses' work and home resources (Demerouti, 2012), our results indicated that employees' supportive work-family environments predicted lower levels of WFI for spouses, regardless of gender. Work pressure, however, did not serve as a significant mediator of this association for either husbands or wives. In contrast to the positive crossover effects, the link between wives' work-family environment and husbands' work hours suggested a complementary crossover pattern with wives' supportive work-family environments predicting husbands' longer work hours. These findings are consistent with prior research showing that some couples organize their work schedules such that one spouse devotes more time to the breadwinner role (Becker & Moen, 1999; Carriero et al., 2009; Täht & Mills, 2012). The mediating effect of husbands' work hours, that is, that wives supportive work-family environment predicted *higher* levels of husbands' WFI through husbands' work hours, reached only trend level. Though consistent with the idea that work-family linkages may involve trade-offs between spouses' well-being, this finding should be interpreted cautiously pending replication. These findings, however, suggest that wives' work-family environment have multifaceted implications for husbands' WFI. Past research finds that even wives who work full time spend more time than husbands engaging in household tasks (Bianchi et al., 2000; Hochschild & Machung, 2012; Saxbe et al., 2011), and thus a supportive work-family environment may allow women to engage in even more of these household tasks—and freeing up their husbands to work more hours. In contrast, a supportive work-family environment for men may have no implications for their household work, which is thus not associated with their wives' work hours or work pressure. Future research should also examine other dimensions of spouse work and family resources including their home or personal resources (e.g., family satisfaction; energy; household division of labor) and other workplace experiences (e.g., responsibilities and involvement) that may help to explain such work-family crossover effects (Matias et al., 2017; Thomas & Ganster, 1995).

Limitations and Future Research Directions

In the face of its contributions to understanding work-family processes, limitations of this study provide directions for future research. First, our study sample was almost exclusively European American and from a single geographic region and thus research on more diverse samples is an important research direction. Work-

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family processes may operate differently among couples in racial/ethnic groups that face labor market discrimination or that espouse more or less traditional gender role norms. Second, this study relied on self-reports of the work-family environment collected in home interviews. Although we controlled for potential confounding factors to reduce the possibility of third variable effects, including individual and family characteristics (i.e., depressive symptoms, marital satisfaction, age, education, number of children), self-report biases may have inflated some effects. Future research would benefit from including measures collected in the workplaces such as managers' and/or coworkers' reports of the work environment as well as objective measures of workplace policies. Third, our study design was correlational, and therefore causal conclusions cannot be drawn: work-family interference may be responsible for spouses' perceptions of their work-family environment rather than the other way around. Future research using experimental designs, for example, testing inventions that aim to enhance work-family support, are needed to determine the causal role of work characteristics in spouses' spillover and crossover experiences (Kelly et al., 2014). Finally, research is needed to further illuminate the mechanisms underlying spillover effects in husband's work-family experiences and the crossover effects of the work-family environment on spouses' WFI. Qualitative research may provide some insights into the benefits of supportive work-family environments for husbands and for couples.

Conclusion

In sum, this study contributes to the work-family literature in its focus on positive work environment effects—in the forms of both spillover and crossover—on employees and their spouses, examination of the mechanisms that may underlie these linkages, and tests of gender differences in these processes. At the most general level, the findings provide support for the Work-Home Resources model in documenting that resources at work—namely a supportive work-family environment—has the potential to reduce work-to-family interference. They are also consistent with a family systems perspective in documenting that families act as open systems, subject to external influences such as from the world of work and evidencing reciprocal influence processes in the couple relationship. Adding to a body of evidence on the role of gender in work-family dynamics, our findings also highlight that work-family processes do not operate in the same way for women and men and underscore the importance of unpacking gender effects in future research. Finally, our findings have practical implications for workplace policies and practices in documenting that supportive work-family environments may be a particularly valuable resource for families, though the role of gender should be considered in implementation, such as different crossover effects between wives and husbands. In particular, policies and practices that emphasize the value of both work and family and provide supports for employees to meet parenting responsibilities (e.g., schedule flexibility) may be particularly important for families, as our results provide evidence that these supportive environments have positive implications for both employees and their spouses.

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