

DOI: 10.1111/peps.12559

ORIGINAL ARTICLE



Double challenges: How working from home affects dual-earner couples' work-family experiences

Correspondence

Yating Gao, Guanghua School of Management, Peking University, 5 Yiheyuan Road, Beijing 100871, China.

Email: gaoyating@pku.edu.cn

Funding information

National Natural Science Foundation of China, Grant/Award Numbers: 72072005, 72272087

Abstract

Against the backdrop of COVID-19 pandemic, we draw on family systems theory to elucidate how daily work-fromhome status (WFH) affects both members in dual-earner couples. We propose that the WFH exerts intra-individual and inter-individual influences on employees' and their partners' work task and family task completion and their subsequent reactions to their work and family experiences. We examined the hypothesized relationships with two daily survey studies on dual-earner couples conducted during the pandemic (i.e., 1,559 daily responses of 165 dual-earner couples from China in Study 1, and 773 daily responses of 57 dual-earner couples from South Korea in Study 2). The two studies provide converging results that working from home (vs. office) increased employees' family task completion for both husbands and wives and that wives working from home (vs. office) decreased husbands' family task completion. Further, in both studies, daily work task completion increased felt guilt toward family (for wives only) through increased work-family conflict, and daily family task completion increased psychological withdrawal from work through increased family-work conflict for both husbands and wives. Moreover, we found in Study 2 that on days when husbands had flexible work schedule, wives completed more work tasks when working from home (vs. office) and that on days when wives had inflexible work arrangement, husbands

¹Fisher College of Business, The Ohio State University, Columbus, Ohio, USA

²Guanghua School of Management, Peking University, Beijing, China

³School of Labor and Employment Relations and Department of Psychology, University of Illinois at Urbana-Champaign, Champaign, Illinois, USA

⁴School of Management, Shandong University, Jinan, China

⁵Guanghua School of Management, Peking University, Beijing, China

17446707, 2023, 1, Dowloaded from https://onlinelibrary.wiley.com/doi/10.1111/peps.12539 by Tsinghau University Litary, Wiley Online Library on [1111/2024]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library or rules of use; OA articles are governed by the applicable Centret Commons License

completed more family tasks when working from home (vs. office). Across the two studies, there were no clear genderdifference patterns in husbands' and wives' work and family experiences.

KEYWORDS

conflicts between work and family, dual-earner couple, family task completion, working from home, work task completion

INTRODUCTION

Remote work has been on the rise in modern organizations globally due to advancements in digital technologies, changing environments, and labor needs (Gajendran & Harrison, 2007; Ollier-Malaterre et al., 2019). Before the COVID-19 pandemic (a global health tragedy), a report in 2019 showed that 62% of survey respondents worked at least partially remotely (OWL Labs, 2019). The pandemic has accelerated the trend toward ongoing remote work and will likely increase it eventually. Indeed, millions of employees have to work from home due to the rising concern over this disease and a number of major companies have announced that employees can now work remotely in the long run (Putzier, 2022). Thus, the pandemic has created a unique context to understand remote work and employees' handling of work and family responsibilities. Since the onset of the pandemic, external family-related services have become less available because of social distancing guidelines and health concerns. As such, employees have faced increased family demands. Working from home poses double challenges to dual-earner couples, who must handle the isolated, disconnected remote work alongside increased family responsibilities. Thus, we asked: How does pandemic-associated working from home (WFH) affect employees' work and family experiences? How do the members of a dual-earner couple (e.g., the husband and the wife of a heterosexual couple) affect each other in their shared space? Do the husband and the wife differ in their work-family experiences?

Answering these questions is both theoretically important and practically meaningful. Theoretically, work-family theory and research has shown that, as dual-earner couples juggle two work schedules and family duties, one party's behaviors and experiences directly influence the other (Shockley et al., 2017; Westman, 2001; Westman & Vinokur, 1998). However, explorations of dual-earner couples' work and family experiences when both partners work at least partially remotely are missing from the literature. Similarly, a robust literature on remote work unpacks how this might influence employees' work completion and interfere with their family activities (Gajendran & Harrison, 2007). Nevertheless, much less attention has been paid to how the impacts of remote work may affect certain family structures, such as dual-earner households. There is a need to link and advance the two streams of scholarship on dual-earner couples and remote work. Furthermore, against the backdrop of COVID-19, it remains open whether men and women respond to remote work status and meet work and family demands following traditional gendered patterns (Shockley, Clark, et al., 2021). In practical terms, dual-earner families have become a common structure worldwide. For instance, in married-couple households, two-earner households constituted 46.8% in the United States (U.S. Bureau of Labor Statistics, 2022), over 75% among population aged 25-54 in European Union Member States (Eurostat, 2022), 45.4% in South Korea (Yoon, 2022), over 50% in China (National Bureau of Statistics of China, 2021), and 66% in Australia (Wilkins et al., 2019). Thus, studying how dual-earner couples navigate the boundaries between work and family becomes a significant endeavor that matters for both research and practice.

Our research addresses these questions about remote-working dual-earner couples. We develop a comprehensive model of how and when WFH status (i.e., working from home vs. in office) exerts intra-individual and inter-individual influences on dual-earner couples' work and family experiences. We theorize that WFH status influences employees' own and their spouses' work and family task completion, perceptions of inter-role conflicts, and psychological

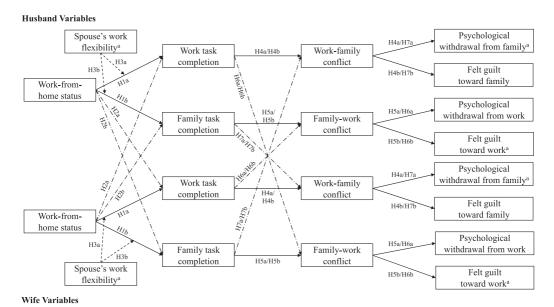


FIGURE 1 The hypothesized model

Note. H = Hypothesis. The solid lines indicate effects for the same person, the dashed-dotted lines indicate crossover effects, and the dashed lines indicate moderation effect between one's own work-from-home status and spouse's work flexibility. a Variables that were only measured in Study 2 but not in Study 1.

reactions to both work and family domains. We further contend that spouses' work flexibility conditions the influences of employees' WFH status on their own work and family task completion. We base our predictions on family systems theory (Hammer et al., 2003), which explains the dynamics of two important microsystems: work and family, and the interactive relationships between behaviors and attitudes of both members of a dual-earner couple. Boundaries, the rules defining subsystems (work role and family roles) and relationships (who participates and how in the family), often regulate family systems (Ashforth et al., 2000; Kahn et al., 2013). When employees work from home, they can switch between work and family microsystems easily, but they may face blurred work-family boundaries and more interruptions in their work and family roles (Ashforth et al., 2000; Desrochers et al., 2005). Employees' work and family boundary activities are inherently relational because they can influence significant others, and they often occur through interactions with significant others. Yet, "research has rarely considered how boundary work is embedded in relationships" (Beckman & Stanko, 2020, p. 412). Thus, it is critical to consider the bidirectional influences of the behaviors of both partners in the dual-earner couples' system to co-construct the work-nonwork boundary.

Figure 1 summarizes our theoretical model. Based on two unique samples of cohabiting dual-earner heterosexual couples (165 couples from China with 1,559 daily observations and 57 couples from South Korea with 773 daily observations during the pandemic), we unravel the intricate, dynamic process that dictates the influences of daily WFH status on dual-earner couples' work and family task behaviors and their psychological reactions to work and family. We aim to contribute to the literature of work-family interface in three interrelated ways. First, we extend the literature by showing how remote work influences family systems. By investigating employees' and their spouses' WFH experiences, we facilitate greater understanding of boundary work and its influences on relational systems, actively responding to recent calls on how remote work influences boundaries within individuals and across system members (Ollier-Malaterre et al., 2019). We also add value to family systems theory and research by studying the processes by which a major global crisis poses threats to family relational systems and influences the work and family experiences of system members in dual-earner couples. Second, we enrich existing research on dual-earner couples by accounting

17446707, 2023, I, Downholded from https://onlinelibrary.wiley.com/doi/10.1111/peps.12539 by Tsinghau Diviersity Library, Wiley Online Library on [1111/2024]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Centric Commons License

for multiple layers of spillover and crossover effects to capture the complex interactions within dual-earner couples. Deviating from prior research that primarily focused on one-time spillover effects between domains (i.e., work or family), or between partners, Booth-LeDoux et al. (2020) showed how employees' work experiences spill over to home (first employee work-to-home resource spillover), which influence their partners' home experiences (first employeepartner crossover) and subsequent partners' work investment (second partner home-to-work spillover). Considering the dynamic, evolving nature of family systems (Hammer et al., 2003), we extend their work and identify additional layers of spillover and crossover influences to capture the bidirectional influences among dual-earner couples further. We document how employees' WFH status influences their work and family task completion (first work-to-family spillover) and crosses over to influence their spouses' work and family task completion (first employee-to-spouse crossover). We then describe how employees' work and family task completion further influences psychological experiences at home and work (second work-to-family spillover and third family-to-work spillover) and further crosses over to affect spouses' feelings about home and work roles (second employee work-to-spouse work crossover and third employee family-to-spouse family crossover). We also advance knowledge of dual-earner families as units by showing how spouse work flexibility alters the impact of employee WFH status on work and family task completion. Third, our research adds value to dual-earner couples research by exploring whether there are asymmetrical influences between men and women when they work from home. Whereas working from home may have a disproportionate impact on women, remote working men also experience a stronger need to meet increased family demands. Thus, the pandemic may reveal a novel division of labor in the family and may have a lasting impact on work-family dynamics. Faced with the novel situation of the pandemic, we investigate whether there are disparities in crossover influences between men and women and vice versa.

THEORY AND HYPOTHESES

Family systems theory (Hammer et al., 2003), originated from the ecological systems theory (Bronfenbrenner, 1977), serves as our theoretical framework for understanding work-family interface. Systems theory explains the ecological validity in the study of human development, describing a progressive, mutual link between a growing human organism and its changing environment, including immediate environments (microsystems) and more extensive social contexts (mesosystems or macrosystems). Microsystems are relationships within a primary environment in which people engage in specific roles (e.g., family member, employee). A mesosystem includes the interrelationships among people's primary life settings (e.g., interactions with family members). Family systems theory (Hammer et al., 2003), based on systems theory, accentuates the value of examining the broader family systems (i.e., mesosystems) within which individual members' behaviors occur. It is a valid framework for describing dual-earner couples' family and work experiences (Hammer et al., 2005).

The interrelatedness of the components of systems such that changes in one subsystem relate to changes in other subsystems is a core tenet of family systems theory (Hammer et al., 2003). The immediate environments that affect the day-to-day livelihoods of working adults often include two key microsystems: work roles and family roles. Individuals' behavior in one microsystem directly affects their behavior in another, which is the spillover effect (Edwards & Rothbard, 2000). Much research using systems perspectives focuses on boundary work, which illustrates how individuals manage transitions between work and family roles (Ashforth et al., 2000; Clark, 2000; Nippert-Eng, 1996; Olson, 2000). Working from home is a longstanding example of spatial boundary blurring (Gajendran & Harrison, 2007; Kossek & Lautsch, 2012; Ollier-Malaterre et al., 2019) because it makes the boundaries of work and family microsystems more flexible and permeable (Hall & Richter, 1988). When working from home, individuals may be more flexible in choosing locations or managing work schedules than those working in the office (Ashforth et al., 2000). But this also comes with a price—the increasing likelihood of family activities expanding into the workspace (Ollier-Malaterre et al., 2019). Working from home, usually enabled by technology, also allows for more permeable boundaries between work and family microsystems (Ollier-Malaterre et al., 2019). That is, individuals who are physically in one domain may be

psychologically and behaviorally involved in another domain (Nippert-Eng, 1996). For example, employees who work from home may easily think about doing laundry or picking up deliveries. Or, even when they are with their spouses and other family members, employees may have the impulses to check emails from coworkers.

For a dual-earner couple, the mesosystem encompasses interactions between two members (Booth-LeDoux et al., 2020; Bronfenbrenner, 1977). Each member's work and family activities affect the other's work and family experiences (i.e., the crossover effect; Westman, 2001). Dual-earner couples form relational systems that shape what occurs within their families (Kahn, 1998). "All human systems are relational, in that they are composed of individuals who move toward and away from another in ways that become patterned over time" (Kahn et al., 2013, p. 378). The COVID-19 crisis is a particularly relevant context to study dual-earner couples' relational systems because it is a high-impact, low-probability event that threatens the work and family aspects of life and represents a significant jolt to family systems (Kahn et al., 2013). Unlike non-crisis issues, crises bring time pressure and ambiguity (James et al., 2011). These characteristics increase the challenge for employees to navigate the transitions between work and family microsystems effectively (Allen et al., 2014) and to coordinate with their spouses as they cross domains. We argue that, when working from home during the pandemic, individuals' microsystems of work and family likely get intertwined such that work and family matters occur at home and strengthen the mesosystem-to-mesosystem transmission between family members. Considering a dual-earner couple as the unit of analysis, we provide insights on not only each member's behavioral and psychological outcomes of WFH, but also their coordination in responding to family and work demands during the COVID-19 crisis.

2.1 Work-from-home: Influences on intra-individual systems

We first propose that WFH resulted from the pandemic increases the interconnectedness of two dominant microsystems and affects individuals' work and family pursuits, that is, work and family task completion. Work/family task completion differs from related constructs such as work/family role performance or productivity. The former is mainly driven by time and attention to work or family (ten Brummelhuis & Bakker, 2012). In contrast, the latter captures the quality of completed tasks, adaptability, and proactivity in uncertain situations (Griffin et al., 2007). It can also depend on additional resources such as creative problem solving or unique materials, information, and support (Bakker & Demerouti, 2018). Whereas some of the determinants are relevant, most are beyond the scope of our research focus on work/family task completion. Thus, we focus on task completion and expect WFH to have a theoretically relevant and direct influence on task completion in both work and family domains.

We contend that such influence is especially salient during crises because the home environment can easily enact the family role and cause cross-role interruptions (work to family or family to work interruptions) (Ashforth et al., 2000; Kossek et al., 2012; Nippert-Eng, 1996). The blurring boundaries are exacerbated during the COVID-19 pandemic, in that this crisis disrupts work routines and family operations and requires extra time and effort to quickly adjust to the unbalanced system (Kahn et al., 2013). Research on work interruption offers helpful explanations for the influence of WFH on work and family microsystems. People usually face four types of interruptions to work (Jett & George, 2003): (a) intrusion by or unexpected encounter that interrupts the flow of continuity of an individual's work; (b) breaks, or taking time off from work; (c) distractions, competing activities, or irrelevant environmental stimuli; and (d) discrepancies, which occur when the environment offers "demands and situations which are different from what the individual expects" (Mandler, 1990, p. 28). Unexpected crises can disrupt normal operations and family systems (Kahn et al., 2013). When working from home, employees may get more unscheduled calls for workrelated support and information or more communications with spouse or other family members for urgent family matters (i.e., intrusion). As such, their attention will momentarily shift to issues unrelated to their current work, and they may need more effort to switch back and forth between competing factors at home and at work (Golden et al., 2006; Ocasio & Wohlgezogen, 2010), which may hurt work task completion but increase completion of family tasks. Furthermore, COVID-19-propelled remote work leads to more virtual meetings, which increases employees' feelings

17446707, 2023, I, Downholded from https://onlinelibrary.wiley.com/doi/10.1111/peps.12539 by Tsinghau Diviersity Library, Wiley Online Library on [1111/2024]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Centric Commons License

of being drained and lacking energy, or Zoom fatigue (Shockley, Gabriel, et al., 2021), leading to a greater desire for breaks. In addition, the home environment has more family-relevant stimuli than the office environment does. Employees might be sidetracked by distractions, such as the sound of a running washing machine or a spouse speaking in another room during virtual meetings, which affects their cognitive processes and diverts attention from their work to their home. During a widespread crisis, individuals' work and life are changing constantly. When they work from home, they may experience more unprecedented changes in operation flows and rhythms (Kahn et al., 2013), more unpredictability in connecting with physically distant colleagues (Kalleberg & Dunn, 2016; Ollier-Malaterre et al., 2019), and higher expectations to fulfill family responsibilities with fewer available outsourcing opportunities. As such, the COVID-19 pandemic has triggered discrepancies that interrupt familiar, "normal" structures, further intervening work task accomplishment but increasing family task completion.

Taken together, working from home during the pandemic increases major disruptions to work, which lead to inefficiency in work task completion (Baethge & Rigotti, 2013; Pachler et al., 2018; Puranik et al., 2021; Rapp et al., 2021). Whereas WFH hurts employees' work task completion, it may give employees more effective mental connections with home life (Golden et al., 2006), bring time resources to the family domain (Sonnentag et al., 2018; Stanko & Beckman, 2015), and allow employees to complete more family tasks. We thus propose that pandemic-associated WFH causes an intra-personal transmission of time and attention from work to family and results in less work task completion and more family task completion.

Hypothesis 1: Compared to days when they work in the office, when employees work from home, they will complete (a) fewer work tasks and (b) more family tasks.

Work-from-home: Influences on inter-individual systems

COVID-19 pandemic-associated working from home not only causes cross-role interruptions between the two microsystems, but also fosters a blurring of the relational boundaries between the two mesosystems in the family system (Ollier-Malaterre et al., 2019). WFH may generate crossover effects between the members of dual-earner couples as a function of social interactions, or through common stressors (Westman, 2002; Westman & Vinokur, 1998). Family systems theory highlights the importance of understanding the mesosystem-to-mesosystem transmission of experiences and examining the interactive relationships of work and family activities of both members in a dual-earner relationship (Hammer et al., 2003). Hence, the dual-earner couple acts as a relational system in which each member is a unique mesosystem of the other member (Booth-LeDoux et al., 2020; Bronfenbrenner & Morris, 1998).

Although our theorizing is not bounded within the pandemic context, the pandemic allows a great opportunity to understand the relational system of dual-earner couples because both partners tend to rely on each other more heavily to respond to the disrupted family system. A relational system often includes a set of structures through which complex organizing and task coordination occur (Feldman, 2004). Although dual-earner couples may have worked remotely before the pandemic, because of health concerns and prohibitions on large gatherings, remote working couples have increased task coordination in managing changing work and family demands. As a result, when working from home, they may restructure their relational patterns (Shockley, Clark, et al., 2021) based on individual members' work arrangements. As stated above, when employees work from home, their family microsystem is easily impacted, and they may take increased responsibilities to handle household duties, which reduces the amount of family work for the spouse, permitting the spouse to focus on work (Roeters et al., 2010; Vieira et al., 2016). Thus, we propose that, among dual-earner couples, one member's WFH may increase the other's work task completion and reduce the other's family task completion.

Hypothesis 2: Compared to days when they work in the office, when employees work from home, their spouses will complete (a) more work tasks and (b) fewer family tasks.

2.3 | Spouse work flexibility as a moderator

Systems theory not only highlights the intra-individual and inter-individual relationships among subsystems, but also points to the interactions of the two relationships. That is, particular microsystems can more strongly or weakly transfer to other microsystems, depending on important contextual factors in the mesosystem (Booth-LeDoux et al., 2020; Bronfenbrenner, 1977). In the family system, a spouse's flexibility to modify strategies to meet with work and family demands can directly shape the relational boundaries among a dual-earner couple (Ashforth et al., 2000; Desrochers et al., 2005; Nippert-Eng, 1996).

We propose that spouses' work flexibility, or autonomy to schedule work hours and procedures, can influence how employees respond to their WFH status (Allen et al., 2014) for three reasons. First, working from home requires family system members to reorganize resources and actions, especially under unexpected conditions when some resources and work processes become unavailable. Spouses with work flexibility are better able to adapt to situational changes and to reshape relational boundaries in the family system by shifting what both members can do and focus on (Kahn et al., 2013; Kossek et al., 2012). When urgent family matters arise, spouses with work flexibility can move work tasks around to address the family's needs and ease the burden of family tasks on their remote working partners. Second, when spouses have flexible work hours, employees who work from home may have a less disrupted working environment at home because their spouses are more likely to do contingency planning to avoid potential interruptions (Parke et al., 2018). Third, when working from home, employees typically may find it hard to maintain a clear work-home boundary and have increased negative feelings about work and family role accomplishments (Golden et al., 2006). However, when knowing their spouses being able to flexibly make work arrangement, employees may be more reassured about family responsibilities and have more cognitive resources to manage their work demands.

Hypothesis 3: Employees who work from home (vs. office) complete (a) more work tasks and (b) fewer family tasks when their spouses have higher levels of work flexibility than when their spouses have lower levels of work flexibility.

2.4 The subsequent intra-individual influences

Systems theory suggests that it is important to consider the growing, developing nature of individuals and the changing environment (Bronfenbrenner, 1977). We thus contend that the microsystem-to-microsystem influence process continues and propose two additional forms of intra-individual influence in which levels of work task completion (family task completion) can further influence individuals' psychological withdrawal from and feelings of guilt for family (work). We focus on psychological withdrawal and feelings of guilt because they are important psychological and emotional outcomes of work and family role blurring (Ashforth et al., 2000; Greenhaus et al., 2006; Hochschild, 1989; Shaffer et al., 2001).

We consider the conflicts between the two microsystems or inter-role conflicts between work and family as bridges that link individuals' task completion in one domain to their psychological and emotional reactions in the other. WFC and FWC are inter-role conflicts in which work and family role demands are mutually incompatible, with increased demands in one domain making it challenging to meet the demands in the other (Allen & Martin, 2017; Edwards & Rothbard, 2000). In particular, completing more work tasks suggests an increase in employees' workload and their time and attention invested on work. Consequently, there will be less time for family chores and family life in general, that is, WFC (Casper et al., 2007; Hammer et al., 2005; Ilies et al., 2007; Michel & Hargis, 2008; Peeters et al., 2005). WFC, in turn, leads to employees' unwanted psychological focus on work-related concerns, leading to psychological withdrawal from family members (Martinez-Corts et al., 2015). At the same time, employees' increased involvement in work and WFC make them psychologically less prepared for their family role (Ashforth et al., 2000), thus reducing their ability

to fulfill role responsibilities later at home and violating the norm in the family system that members should attend to family role demands. As such, employees may feel self-disappointed and guilty toward family members. Research has shown that feelings of guilt toward family is an emotional response to WFC (Carlson & Frone, 2003; Holcomb et al., 1998; Livingston & Judge, 2008; Mauno & Kinnunen, 1999; McElwain et al., 2005) and to an increase in work involvement (Glavin et al., 2011; Mann & Holdsworth, 2003). Such guilt resulting from increasing work task completion and WFC is especially salient during a crisis, because the need and expectation to care for family matters has increased, but family time is lacking (James et al., 2011; Kahn et al., 2013).

Hypothesis 4: On days when employees complete more work tasks, they will (a) have increased psychological withdrawal from family and (b) feel guilt toward family due to increased WFC.

Similarly, we contend that increased family task completion is associated with increased interference of family with work (i.e., FWC), which may adversely influence individuals' work task completion, and thus increase their withdrawal attempts from and feelings of guilt toward work, Compared with individuals' own task completion, their family task completion more directly affects the family system because resources are directly devoted to the family domain. Specifically, significant family task completion indicates that increasing investment of time and attention at home. Such increase in family involvement may increase FWC (Peeters et al., 2005). As a result, individuals may feel emotionally and physically exhausted, and lack time to invest in work (Wagner et al., 2014), which further harms their psychological experiences at work and generates psychological work withdrawal (Hammer et al., 2003). Concomitantly, when working remotely, employees may reappraise their work expectations because of their isolation and disconnection from their coworkers (Kahn et al., 2013; Kramer & Kramer, 2020) and evaluate whether they can remain valuable contributors at work (Feldman & Gainey, 1997; Gajendran & Harrison, 2007; Kossek et al., 2006). Increased family task completion and subsequent FWC experiences may exacerbate their worries about work (Pachler et al., 2018), cause discrepancies between their current state and an ideal work state (Courtright et al., 2016), and violate successful or good worker standards (Halpern & Murphy, 2005; Livingston & Judge, 2008), making them feel guilty about falling behind on work. Thus, we hypothesize:

Hypothesis 5: On days when employees complete more family tasks, they will (a) have increased psychological withdrawal from work and (b) felt guilt about work due to increased FWC.

2.5 The subsequent inter-individual influences

Considering the dynamic, ongoing interactions among family members (Hammer et al., 2003), we propose that interindividual transmission also continues. Systems theory indicates that "a mesosystem is a system of microsystems" (Bronfenbrenner, 1977, p. 515). Individuals' work and family experiences (i.e., individuals' microsystems) may directly relate to their spouses' feelings about their own family and work roles (i.e., spouses' microsystems). We anticipate that employees' professional work task completion (or family task completion) may generate inter-role conflicts and further affect spouses' psychological withdrawal and feelings of guilt toward work (or family). Among dual-earner couples, experiences and feelings are so interrelated that one member's time and energy at work may increase the need for the partner to engage at home or vice versa (Vieira et al., 2016). When observing their partners completing jobrelated tasks, spouses may recognize that their partners have limited resources to devote to family responsibilities. Thus, they may develop higher expectations and feel greater pressure to take on family roles (Booth-LeDoux et al., 2020). Consequently, spouses may find it harder to meet the demands of their work, increasing their FWC (Westman, 2001). The increased FWC further results in psychological withdrawal from work and guilt about failing to complete work.

norm.

logical withdrawal from family duties and guilt feelings for violating the "supportive spouse/family member"

- **Hypothesis 6**: On days when employees complete more work tasks, their spouses will have increased (a) psychological withdrawal from work and (b) felt guilt toward work due to increased FWC.
- **Hypothesis 7**: On days when employees complete more family tasks, their spouses will have increased (a) psychological withdrawal from family and (b) felt guilt toward family due to increased WFC.

2.6 | Gender differences

The lives of dual-earner couples are deeply intertwined, but whether this crossover effect manifests in the same way for men and women remains unexplored. Traditionally (Eagly, 1987; Eagly & Steffen, 1984), men and women tend to take different social roles, that is, men as "resource providers" and women as "homemakers" (Eagly & Wood, 1999). Men, more than women, are thought to be agentic, dominant, and competitive. Women, more than men, are expected to be more communal, nurturing, socially sensitive, and empathetic. Married women employed outside the home place a greater emphasis on their family roles than males (Martins et al., 2002) and disproportionately scale back their commitment to work (Becker & Moen, 1999) whereas married men avoid trading work off against family (Bielby & Bielby, 1989). Women often react more strongly to work arrangement changes than men (Hammer et al., 2005; Kan & Gerhsuny, 2010) because new work modes may disrupt family duties. When female employees work remotely—either by choice or by necessity—due to the pandemic, their gender stereotypes are more easily activated, increasing the pressure to consider their famillies' needs and intensifying their family responsibilities (Jennings & McDougald, 2007; Radcliffe & Cassell, 2015). Thus, there is a good reason to suspect that the crossover influences of WFH are stronger from wives to husbands, compared to from husbands to wives.

However, the increasing prevalence of dual-earner couples diverts the family arrangement from traditional genderbased roles (Edwards & Rothbard, 2000), as male employees more readily embrace family responsibilities and tend to be better at setting boundaries to curtail work spilling over into family life (Choroszewicz & Kay, 2020). Prior research has suggested that cultural changes and family structures have resulted in the traditionally gendered norms gradually dissipating (Park & Fritz, 2015; Yoon, 2010). More specifically, at least three pandemic-triggered factors are not considered in the traditional social role perspective. First, because of the large-scale shift to remote work, men have been much more physically present at home than ever before, which has increased their attention and visibility to family demands. As such, the traditional division of labor and associated gendered patterns of behaviors may alter. Evidence shows that since the pandemic started, men have taken on more family responsibilities and developed stronger relationships with their children (Weissbourd et al., 2020). Second, the reduced availability of family outsourcing resources due to COVID-19 has increased family demands. Even if dual-earner couples worked remotely previously, they face greater challenges and may adjust as units to meet work and family commitments. Research has shown that dualearner couples are likely to adopt new, more egalitarian work-family management practices in which both men and women completed family responsibilities (Shockley, Clark, et al., 2021). Third, the burden of increased family responsibilities due to the pandemic has caused many women to quit their jobs or take leave from work (Rothwell & Saad, 2021). It remains unclear whether the remaining women's remote work will have greater impact on their spouses' work and family behaviors than the opposite. Thus, we propose research questions regarding whether the pandemic follows or reduces the traditional gender-based disparities in taking family responsibilities between men and women

17446707, 2023, 1, Dowloaded from https://onlinelibrary.wiley.com/doi/10.1111/peps.12539 by Tsinghau University Litary, Wiley Online Library on [1111/2024]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library or rules of use; OA articles are governed by the applicable Centret Commons License

and whether the abovementioned crossover effects differ in magnitude from wives to their husbands compared to those from husbands to their wives.

3 STUDY 1: METHOD

Sample and procedures

A daily study with experience sampling method (ESM) was conducted between April and May of 2020 to test our hypotheses. We recruited 172 Chinese married couples in Mainland China (i.e., Beijing and Inner Mongolia) via two large universities' alumni networks. We paid each participant 200 RMB (32 USD) for full participation. The 2nd and the 5th authors, who were not affiliated with the employers of the participants, were responsible for the data collection. Whereas the two authors' institution did not have an Institutional Review Board (IRB) for management research, we ensured that all procedures were conducted in compliance with the APA ethics code. We first contacted the married couples via phone to verify whether the couples met all criteria to participate in our study: (a) both the husband and wife were employed, (b) they lived together, (c) they had at least one child, and (d) at the time we contacted the participants (i.e., 1 week before our study started), both members of a couple worked from home for some days in a week. We chose to conduct the study in Beijing and Inner Mongolia because during the time window of our study, the pandemic in these areas was under control. Moreover, most employers in these areas implemented a partial remote work policy which made most employees alternate between working from home and in the office.

Our study lasted for 15 workdays. On Day 1, all participants (i.e., both husbands and wives) completed a baseline survey which contained their demographic information. Starting Day 2, each participant was asked to complete two surveys each day for 14 workdays. Specifically, they were asked to fill in the first daily survey at noon. The noon survey included measures on WFH status and amount of work/family task completion. Participants received a second daily survey in the evening which aimed to capture their end-of-workday experiences. The evening survey included measures on WFC, FWC, felt guilt toward family, and psychological withdrawal from work. We matched each participant's noon responses with their evening responses, and then removed cases in which either one of the couple did not provide complete responses (i.e., either in the noon or evening survey or both for a particular day), and removed individuals who went through significant life events during the survey window (e.g., decease of important family members). Our final sample included 1,559 valid daily observations from 165 couples (i.e., on average each couple provided data for 9.45 days). The final sample had an average age of 38.42 years old (SD = 6.69), an average organizational tenure of 12.32 years (SD = 8.75), and an average length of marriage of 11.31 years (SD = 7.73). Participants worked in a wide range of industries, including manufacturing, public administration, finance and insurance, education, and technical services.

3.2 Measures

Our study was conducted in Chinese. All the measures were translated from the English scales following Brislin's (1986) translation-back translation procedure. Online supplement S1 lists all measures that had more than two items used in this study.

3.2.1 WFH status

We measured WFH status by asking "Did you work from home or from office today?" $(0 = \text{work from office}, 1 = \text{work fr$ home).

3.2.2 | The amount of work/family task completion

We measured the amount of work task completion with one direct question: "Please rate the number of work tasks you have completed today" and the amount of family task completion with one question "Please rate the number of family tasks you have completed today" (from 1 = very few to 5 = many).

3.2.3 | WFC/FWC

We measured WFC and FWC using Carlson & Frone's (2003) three-item work interference with family-internal conflict scale and three-item family interference with work-external conflict scale, respectively.

3.2.4 Felt guilt toward family

We measured participants' felt guilt toward family using three items modified from Grant & Wrzesniewski (2010).

3.2.5 | Psychological withdrawal from work

We measured psychological withdrawal from work with three items from Scott & Barnes (2011). One item in the original scale ("put less effort into the job than I should have") was not included due to concerns of misfit with the *psychological* nature of the withdrawal concept.

3.3 | Analytic strategy

Given the nested structure of our data (i.e., participants' responses across different days were nested within the same participants), multilevel path analysis was used to estimate the hypothesized model in Mplus 7, with husbands' and wives' responses on all measures treated as distinct variables and all relationships estimated at the within-person level (i.e., Level 1). All hypotheses were estimated simultaneously. Specifically, at Level 1, we used the actor-partner interdependence model (APIM; Kashy & Kenny, 2000; Kenny et al., 2002) to account for both actor effects (e.g., the effect of husbands' WFH status on husbands' work task completion) and partner effects (e.g., the effect of husbands' WFH status on wives' work task completion) in our hypothesized model concurrently. APIM is particularly useful when interdependent data are collected from dyads such as in our study and allows researchers to effectively examine whether the same theoretical process functions for both dyad members (for recent applications in organizational research, see Ng & Wang, 2019). For the actor effects, we specified the effects of WFH status on the amount of work and family task completion, the effects of the amount of work and family task completion on WFC and FWC, the effects of WFC and FWC on felt guilt toward family and psychological withdrawal from work, and all possible direct effects implied in these associations for husbands and wives, respectively. For the partner effects, we specified the same abovementioned effects flowing from one dyad partner (i.e., husbands/wives) to the other partner (i.e., wives/husbands). To account for the non-independence of dyad partners, we also specified dyadic covariances for the exogenous variable (i.e., WFH status) and for the error terms of all endogenous variables (i.e., work/family task completion, WFC, FWC, felt guilt toward family, and psychological withdrawal from work) between husbands and wives (Ledermann et al., 2011). To examine the indirect effects in our model, we used the Monte Carlo bootstrap method with 20,000 replications to obtain the 95% confidence intervals (CIs; Selig & Preacher, 2008). To facilitate interpretation of our findings, all variables were group-mean centered (Hofmann & Gavin, 1998).1 At the between-person level (i.e., Level 2), we

simply estimated the mean and variance components of all variables. Following Newman (2014), we used fullinformation maximum-likelihood estimation to handle missing data, which allowed us to utilize all available data in our analysis.

STUDY 1: RESULTS

4.1 | Preliminary analysis results

Means, standard deviations, reliabilities, and bivariate correlations of all variables are displayed in Table 1. Confirmatory factor analysis (CFA) was conducted to examine the construct validity of variables measured with more than one item. We used the sandwich estimator to obtain robust standard errors of parameter estimations (i.e., TYPE = COM-PLEX command in Mplus 7) to account for potential nonindependence of observations due to the same cluster (i.e., person; Rogers, 1994), so that we did not have to fit the CFA model with a multi-level structure, which was computationally demanding and indeed did not converge. An eight-factor model was specified by loading items on their respective latent variables (i.e., WFC, FWC, felt guilt toward family, and psychological withdrawal from work for both husbands and wives, respectively). This model fitted the data well: $\chi^2(224) = 391.34$, p < .001, confirmatory fit index (CFI) = .99, root mean square error of approximation (RMSEA) = .02 (90% CI = [.019, .026]), and standardized root mean square residual (SRMR) = .02. All items loaded significantly on their corresponding latent constructs (standardized factor loadings ranged from .75 to .97). This eight-factor model fit better than a two-factor model in which all items from husbands and wives were loaded onto two distinct factors $(\chi^2[251] = 7870.93, p < .001, CFI = .44, RMSEA = .14$ with a 90% CI of [.139, .145], and SRMR = .14; $\Delta \chi^2[27] = 7579.59$, p < .001), and fit better than a one-factor model in which all items were loaded onto the same factor ($\chi^2[252] = 11100.25$, p < .001, CFI = .20, RMSEA = .17 with a 90% CI of [.167, .172], and SRMR = .21; $\Delta \chi^2$ [28] = 10708.91, p < .001). As such, our measures did capture distinct constructs.

4.2 Hypothesis testing results

Although dyadic members in our data (i.e., husbands vs. wives) by theory are distinguishable by gender and therefore should lead to substantive differences in the estimations of actor and partner effects between husbands and wives (e.g., Matias et al., 2017; Wang & Repetti, 2014), it is possible that such an assumption does not hold empirically. Therefore, we first conducted an omnibus test of distinguishability to check whether our model can be simplified by treating husbands and wives as indistinguishable (Kenny et al., 2006; Ng & Wang, 2019). We compared the model fit between two models: an unconstrained model which was the model we specified for our main analysis, and a constrained model in which we placed equality constraints on the variance, covariance, and means of all study variables between husbands and wives. Adding these equality constraints significantly worsen the model fit compared $(\Delta \chi^2[56] = 196.95$, p < .001). This result suggests that husbands and wives in our data were indeed distinguishable, and their effects should be analyzed with separate parameter estimations.

Unstandardized coefficients for the estimated model are displayed in Table 2, and key findings are summarized in Online Supplement Figure S1. In line with Hypothesis (H)1a, husbands completed fewer work tasks when working from home (vs. office; $\gamma = -.27$, p = .020). However, the same effect was not significant among wives ($\gamma = .17$, p = .089). Therefore, H1a was only partially supported. We also found both husbands ($\gamma = .35$, p < .001) and wives ($\gamma = .28$, p < .001) completed more family tasks when they worked from home (vs. office), supporting H1b. Regarding H2a, husbands completed more work tasks when their spouses worked from home (vs. office; $\gamma = .46$, p < .001), but did not find the same effect for wives ($\gamma = .14$, p = .195). Therefore, H2a was partially supported. In addition, both husbands $(\gamma = -.14, p = .030)$ and wives $(\gamma = -.26, p < .001)$ completed fewer family tasks when their spouses worked from home

Study 1: Mean, standard deviations, intraclass correlation, reliabilities, and bivariate correlations among variables TABLE 1

Variables	+	2	က	4	2	9	7	∞	6	10	11	12	13	14
Husband variables														
1. Work-from-home status ^a	ı													
2. Work task completion ^a	05	ı												
3. Family task completion ^a	.16	26	1											
4. Work-family conflict ^b	.13	.13	90:	(36)										
5. Family-work conflict ^b	.05	60:	80.	.55	(.97)									
6. Felt guilt toward family ^b	001	.20	10	.17	.20	(06.)								
$7.Psychologicalwith drawal fromwork^b$.03	60:	90	.22	.30	.24	(98.)							
Wife variables														
8. Work-from-home status ^a	.18	.19	04	.07	.002	90:	.04	1						
9. Work task completion ^a	.07	.38	11	.14	60.	.10	.11	.10	ı					
10. Family task completion ^a	09	09	.13	03	.03	01	03	.11	24	1				
11. Work-family conflict ^b	.03	.14	03	.14	60.	90:	.12	.21	.25	800.	(96')			
12. Family-work conflict ^b	008	.17	90	60.	.15	.03	.11	.12	.18	6.	.58	(.97)		
13. Felt guilt toward family $^{ m b}$.05	9.	.004	80:	.10	90.	005	90.	.18	11	.25	.27	(.91)	
14. Psychological withdrawal from work $^{\mathrm{b}}$	009	.13	003	.11	.12	80:	.14	.07	.21	05	.27	.26	.19	(98.)
Σ	.32	3.20	2.36	3.13	2.65	3.29	2.93	.55	3.01	2.80	3.23	2.75	2.86	2.71
Within-person SD	0.35	0.97	69.0	1.09	0.93	96.0	0.85	0.36	0.93	0.70	1.10	0.91	98.0	0.85
Between-person SD	0.32	0.76	0.74	1.21	1.08	1.08	1.11	0.35	0.72	89.	1.23	1.14	1.00	1.01
ICC(1)	1	.26	.48	.47	.51	.49	.57	ı	.28	.40	.48	.54	.51	.53

Note. N = 1,559. Work-from-home status was coded as 0 = working in office and 1 = working from home. All correlations were calculated at the within-person level. Cronbach's alpha coefficients are in the parentheses..

^aMeasures in the noon survey.

 $^{^{\}rm b}$ Measures in the evening survey. For |r| > .05, p < .05; for |r| > .07, p < .01.

Study 1: Unstandardized coefficients of the estimated model TABLE 2

Variables	Husband we completion	Husband work task completion		Husband family task Wife work task completion completion	Wife work t	task 1	Wife family task completion	y task n	Husband v	Husband work-family Husband family-work conflict	Husband faconflict	amily-work
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
Intercept	3.12	90.	2.41	90.	3.01	90.	2.73	.05	3.20	60.	2.70	60:
Husband variables												
Work-from-home status	27*	.12	.35	.08	.14	.11	26	.07	.37**	.11	.15	.10
Work task completion									.15	.04	.11	.04
Family task completion									.15	90.	.16	90:
Work-family conflict												
Family-work conflict												
Wife variables												
Work-from-home status	** 94.	80.	*41	.07	.17	.10	.28**	.07	90.	60.	-:10	.09
Work task completion									.13	.04	*60:	.04
Family task completion									.03	.05	*60:	.04
Work-family conflict												
Family-work conflict												
Residual variances at Level 1	1.03	90.	.52	.04	** 26.	90.	.53	.03	1.28	.10	.95	.09
Variances at Level 2	.37**	90.	* * *	.04	.34*	.05	.32**	.05	1.06	.12	** 98.	.10
R ²	90.		90.		.01		90.		.08		.05	
												(Continues)

(Continues)

TABLE 2 (Continued)

Variables	Wife work-family conflict	c-family	Wife family-work conflict	ly-work	Husband felt guilt toward family	elt guilt nily	Husband p withdrawa	Husband psychological Wife f withdrawal from work family	Wife felt g family	Husband psychological Wife felt guilt toward withdrawal from work family		Wife psychological withdrawal from work
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
Intercept	3.16	60.	2.71	60.	3.28	.08	2.98	60.	2.89	.08	2.75	.08
Husband variables												
Work-from-home status	07	.10	06	.07	02	.08	.02	.08	.04	.08	10	.08
Work task completion	.03	.04	**60:	.03	.15	.03	.02	.03	06	.04	.03	.03
Family task completion	.02	.05	02	.04	09	.05	*80:-	.04	.03	.04	.05	.04
Work-family conflict					.07	.05	.05	.04	005	.03	.01	.03
Family-work conflict					.17**	90:	.25	.04	90.	.04	*20.	.04
Wife variables												
Work-from-home status	** +5:	.10	.19	60.	.04	60.	.04	.07	.04	.07	.02	.07
Work task completion	**08:	.05	.17	.04	.02	.04	.03	.03	.11**	.04	* *	.03
Family task completion	60.	90.	.11	.05	.03	.05	02	.04	12	.04	05	.04
Work-family conflict					.03	.04	.05	.04	*60:	.04	.12	.03
Family-work conflict					05	.04	.01	.04	.18*	.04	.13	.04
Residual variances at Level 1	1.22	.10	* 88.	.07	.95	60.	.73**	.07	**47.	90:	.71	.07
Variances at Level 2	1.11^{**}	.14	**66	.13	**68.	.11	**86:	.12	**08.	60.	**98.	60.
\mathbb{R}^2	.14		.08		.08		.10		.10		.11	

Note. N = 1559. *p < .05. **p < .01.

(vs. office), supporting H2b.² Moreover, both husbands' (γ = .15, p = .001) and wives' (γ = .30, p < .001) work task completion were positively associated with their own WFC. However, whereas wives' WFC was then positively associated with their felt guilt toward family (γ = .09, p = .018), the same relationship was not significant for husbands (γ = .07, p = .137). Table 3 summarizes the point estimates and their CIs in testing all mediation hypotheses, and shows the indirect effect of work task completion on felt guilt toward family via WFC was significant for wives (95% CI = [.004, .058]) but was not significant for husbands (95% CI = [-.003, .027]). H4b was partially supported. Moreover, both husbands' (γ = .16, p = .004) and wives' (γ = .11, p = .011) family task completion were positively associated with their own FWC, which was then positively related their psychological withdrawal from work (γ = .25 for husbands and γ = .13 for wives; ps < .001). Table 3 shows that this indirect effect was significant for both husbands (95% CI = [.012, .067]) and wives (95% CI = [.003, .031]), supporting H5a.

As for the crossover effect of work task completion, we found that one's own work task completion was positively related to the spouse's FWC (γ = .09, p < .001 for husbands and γ = .09, p = .028 for wives). Table 3 shows that the indirect effect of one's own work task completion was positively related to the spouse's psychological withdrawal from work via the spouse's FWC (95% CI = [.004, .022] for the crossover from husbands to wives and [.002, .043] for the crossover from wives to husbands), providing support for H6a. At last, regarding the crossover effect of family task completion, we did not find a significant effect of one's own family task completion on the spouse's WFC (γ = .02, p = .677 for husbands and γ = .03, p = .574 for wives). Table 3 shows that the indirect effect of one's own family task completion on the spouse's felt guilt toward family via the spouse's WFC was not significant for either partner (95% CI = [-.006, .014] for the crossover from husbands to wives and [-.004, .012] for the crossover from wives to husbands), failing to support H7b.

To examine research questions on the gender differences in the inter-individual influences in the dual-earner couples' systems, we conducted parameter comparison tests in Mplus 7 by including the "Model Constraint" command, and found that the crossover effect of wives' WFH status on husbands' work task completion was significantly stronger than the crossover effect of husbands' WFH status on wives' work task completion (d = .32, t = 2.42, p = .015). However, the crossover effect of one's own WFH status on the spouse's family task completion did not differ significantly between wives and husbands (d = .11, t = 1.12, p = .265). Furthermore, we found that the indirect effect of one's own work task completion on the spouse's psychological withdrawal from work via the spouse's FWC (i.e., H6a) did not differ between husbands and wives (d = .01, t = .92, p = .358). Finally, given the indirect effect of one's own family task completion on the spouse's felt guilt toward family via the spouse's WFC was not significant for neither husbands nor wives (i.e., H7b), further comparing these two indirect effects would not be meaningful. Thus, we conclude that we did not find any evidence for gender-based disparities in the crossover effects.

The results of Study 1 largely supported the intra-individual and inter-individual influences WFH exerts on members of dual-earner couples. The findings also showed that most of the inter-individual influences did not differ from husbands to wives and from wives to husbands. Although these results are promising, they suffer from several limitations. First, due to space concern in Study 1, we did not collect the other two possible outcomes of WFH (i.e., psychological withdrawal from family and felt guilt toward work), did not measure the moderator in our theoretical model (i.e., spouse's work flexibility), and did not use the full measures for some of the variables (i.e., WFC and FWC). Second, we did not consider several important possible confounding factors, such as couple's pre-pandemic WFH status and WFH preference. Third, we only recruited dual-earner couples with children in Study 1, which does not reflect the reality that not all dual-earner couples have children but they may all experience increased challenges in balancing work and home demands during the pandemic. Given our theoretical model in this research is not bounded to dual-earner couples with children only, range of restriction may be a concern for findings of Study 1, such that it could have caused the relationships we observed here to be attenuated than they might actually be in a more diverse sample. As such, it is important to examine whether our results could be constructively replicated when (a) all variables in our theoretical model are incorporated and with more ideal measures, (b) both couples with and without children are included, and (c) additional pandemic-associated factors are controlled for. To address these

Unstandardized estimates and bias-corrected confidence intervals of indirect effects in the hypothesized model TABLE 3

	Study 1: In	Study 1: Indirect effect		Study 2: Inc	Study 2: Indirect effect	
Variables	Estimate	Bias-corrected 95% CI	ected	Estimate	Bias-corrected 95% CI	cted
Spillover effects		Lower	Upper		Lower	Upper
$Husband\ work\ task\ completion \rightarrow Husband\ WFC \rightarrow Husband\ psychological\ withdrawal\ from\ family\ (H4a)$	1	ı	1	.024	.005	.049
Husband work task completion $ ightarrow$ Husband WFC $ ightarrow$ Husband felt guilt toward family (H4b)	.010	003	.027	.021	.001	.050
Husband family task completion $ ightarrow$ Husband FWC $ ightarrow$ Husband psychological withdrawal from work (H5a)	.039	.012	.067	.046	.016	.087
Husband family task completion $ ightarrow$ Husband FWC $ ightarrow$ Husband felt guilt toward work (H5b)	ı	ı	ı	.059	.020	.114
Wife work task completion \rightarrow Wife WFC \rightarrow Wife psychological withdrawal from family (H4a)	1	ı	1	.046	.018	920.
Wife work task completion \rightarrow Wife WFC \rightarrow Wife felt guilt toward family (H4b)	.028	.004	.058	.022	.003	.043
Wife family task completion $ o$ Wife FWC $ o$ Wife psychological withdrawal from work (H5a)	.015	.003	.031	.028	600	.055
Wife family task completion \rightarrow Wife FWC \rightarrow Wife felt guilt toward work (H5b)	1	ı	ı	.028	.010	.052
Crossover effects						
Husband work task completion $ o$ Wife FWC $ o$ Wife psychological withdrawal from work (H6a)	.012	.004	.022	002	020	.015
Husband work task completion \rightarrow Wife FWC \rightarrow Wife guilt toward work (H6b)	ı	ĺ	ſ	002	020	.016
Husband family task completion \rightarrow Wife WFC \rightarrow Wife psychological withdrawal from family (H7a)	1	ſ	ſ	.002	016	.018
Husband family task completion \rightarrow Wife WFC \rightarrow Wife felt guilt toward family (H7b)	.002	006	.014	.001	010	700.
Wife work task completion $ o$ Husband FWC $ o$ Husband psychological withdrawal from work (H6a)	.022	.002	.043	.004	004	.015
Wife work task completion \rightarrow Husband FWC \rightarrow Husband guilt toward work (H6b)	1	ĺ	ſ	500:	004	.020
Wife family task completion $ o$ Husband WFC $ o$ Husband psychological withdrawal from family (H7a)	1	1	ı	002	015	.005
Wife family task completion \rightarrow Husband WFC \rightarrow Husband felt guilt toward family (H7b)	.002	004	.012	002	016	.004

Note. WFC = work-family conflict, FWC = family-work conflict

issues, our second study used a different sample of dual-earner couples from South Korea to examine our theoretical model.

5 | STUDY 2: METHOD

5.1 | Sample and procedures

We conducted another ESM study in South Korea from June 2021 to August 2021. A total of 60 dual-earner couples were recruited to participate in this study via a professional survey company, and were compensated for their participation. We chose to conduct this study in South Korea because in the summer of 2021, the COVID-19 pandemic still had influences on most employers and their employees in South Korea. Whereas some employees were asked to work from home by their companies, others had the choice to decide whether they wanted to work from home or in office. We recruited couples both with children and without children in this study. Such a sample is also representative of the South Korean population which has the world's lowest fertility rate in 2020 (Reuters, 2021). The 2nd and the 4th authors worked closely with the survey company for the data collection. However, because the two authors' institutions did not have an IRB for management and industrial-organizational psychology studies, we as well as the survey company ensured that all procedures involved the participants were complied with the APA ethics code. Initially, a total of 98 married couples expressed their interests to participate in our study. We further verified whether the participated couples met the following criteria to participate: (a) both the husband and the wife were employed, (b) the husband and the wife lived together, and (c) both the husband and the wife worked from home for some days in a week. The survey company screened out 38 couples who did not meet these criteria, resulting in a total of 60 eligible dual-earner couples.

Our survey lasted for 15 consecutive working days. On Day 1, both husbands and wives completed a background survey including their demographics, employment status, number of children, pre-pandemic WFH status, WFH preference, and within-couple WFH cooperation. Starting Day 2, we distributed surveys to each husband/wife twice a day for 14 consecutive working days. The early evening survey (time range was from 17:00 to 19:00) included WFH status, work task completion, family task completion, and work flexibility. The bedtime survey (time range was from 21:30 to 23:30) included WFC, FWC, psychological withdrawal from work/family, and felt guilt toward work/family. After removing cases with incomplete and ineligible responses, our final sample included 773 valid daily observations from 57 couples (on average each couple provided data for 13.56 days). The final sample had an average age of 39.50 years old (SD = 6.41), an average organizational tenure of 10.35 years (SD = 6.29), an average length of marriage of 8.47 years (SD = 6.01), and .86 children on average (ranging from 0 to 2, SD = .81).

5.2 | Measures

This study was conducted in Korean. All the measures were translated from the English scales following Brislin's (1986) translation-back translation procedure. We used the same measures as in Study 1 to measure WFH status, felt guilt toward family, and psychological withdrawal from work, and reported measures different or not included in Study 1 below. Online supplement S1 lists all measures that had more than two items used in Study 2.

5.2.1 | Spouse's work flexibility

In the early evening survey, we measured participants' daily work flexibility with one question: "Were you allowed to determine your own workload and schedule today?" with two options 0 = "No" and 1 = "Yes." In our analysis below, we

used one's spouse's response on this question (i.e., spouse's work flexibility) as a study variable and used one's own response on this question as a control variable.⁴

5.2.2 | The amount of work/family task completion

We created two items to measure the amount of work task completion. Items included "How many work tasks have you completed today?" and "How many tasks in your core job function have you completed today?" (from 1 = very few to 5 = many). Similarly, we created two items to measure the amount of family task completion: "How many family tasks (e.g., housework, childcare) have you completed today?" and "How much housework (e.g., cleaning, laundry) have you completed today?" (from 1 = very few/very little to 5 = many/much).

5.2.3 | WFC/FWC

WFC and FWC was measured by Carlson & Frone's (2003) six-item work interference with family-internal and external conflict scales and six-item family interference with work-internal and external conflict scales, respectively.

5.2.4 | Psychological withdrawal from family

Psychological withdrawal from family was measured with the same items in Study 1 by changing the reference from work to family.

5.2.5 | Felt guilt toward work

Felt guilt toward work was measured with the same three items in Study 1 with the reference changed from family to work.

5.2.6 | Control variables

Several variables relevant for work-family experiences were controlled for in the analysis. Specifically, at Level 1, we controlled for participants' own daily work flexibility as mentioned above. At Level 2, we controlled for participants' employment status (0 = ``Part-time'' and 1 = ``Full-time''), number of children, pre-pandemic WFH status, and WFH preference. Pre-pandemic WFH status was measured as the average number of days in a week that participants reported working from home prior to the COVID-19 pandemic, and WFH preference was measured by one question (i.e., "Are you allowed to choose which days you would like to work from home by yourself or is it a fixed company policy?" with two options: 0 = ``This is a fixed company policy'' and 1 = ``This is a personal choice''). For those who chose 1 on the WFH preference question, we then asked them "Do you discuss with your spouse and consider your spouse's work situation when deciding which days to work from home?" with two options: 0 = ``No'' and 1 = ``Yes''. For those chose 0 on the WFH preference question, we simply assigned 0 as their responses on this follow-up question. Then, we averaged each couple's responses on this question as an index of within-couple WFH cooperation and controlled for it. All Level 2 controls were measured in the background survey. All of our hypotheses testing results remained virtually the same when all control variables were excluded.

5.3 | Analytic strategy

Following the same procedure from Study 1, we specified and estimated a multilevel, APIM path model in Mplus 7, with a few modifications. Specifically, on the basis of the model specified in Study 1, we included four additional study variables (i.e., husbands' and wives' psychological withdrawal from family and felt guilt toward work) as the final outcome variables at Level 1, the specification of which resembled the other four final outcome variables in the model. In addition, at Level 1, we specified the effects of husbands' and wives' work flexibility on all endogenous variables in our model. Then, we created the interaction term between one's own WFH status and spouse's work flexibility, and included the effects of these interaction terms on all four task completion variables as well as on other outcome variables of the same person. Moreover, at Level 2, we controlled for the effects of one's own employment status, pre-pandemic WFH status, and WFH preference on the group-means of all Level 1 endogenous variables of the same person, and controlled for the effects of number of children and intraspousal WFH cooperation on the group-means of all Level 1 endogenous variables of both husbands and wives, given these two variables indicated family-level concepts that applied to both partners of a couple. Missing data were handled with the same strategy as in Study 1.

6 | STUDY 2: RESULTS

6.1 | Preliminary analysis results

Means, standard deviations, reliabilities, and bivariate correlations of all variables are displayed in Table 4. CFA was conducted to examine the construct validity of variables measured with more than one item, following the same approach used in Study 1. A 16-factor model was specified by loading items on their respective latent variables (i.e., work/family task completion, WFC, FWC, psychological withdrawal from work/family, felt guilt toward work/family for both husbands and wives, respectively). This model fitted the data well: $\chi^2(1364) = 3259.90$, p < .001, CFI = .91, RMSEA = .04 (90% CI = [.041, .044]), and SRMR = .05. All items loaded significantly on their corresponding latent constructs (standardized factor loadings ranged from .49 to 1.03). This 16-factor model fit significantly better than a two-factor model in which all items from husbands and wives were loaded onto two distinct latent factors ($\chi^2[1483] = 12507.25$, p < .001, CFI = .49, RMSEA = .10 with a 90% CI of [.096, .100], and SRMR = .10; $\Delta\chi^2[119] = 9247.35$, p < .001), and also fit significantly better than a one-factor model in which all items were loaded onto the same latent factor ($\chi^2[1484] = 18680.72$, p < .001, CFI = .20, RMSEA = .12 with a 90% CI of [.121, .124], and SRMR = .21; $\Delta\chi^2[120] = 15420.82$, p < .001). As such, our measures did capture distinct constructs.

6.2 | Hypothesis testing results

Following the same procedure from Study 1, we also conducted an omnibus test of distinguishability to examine if husbands and wives can be treated as indistinguishable in our APIM analysis. We found that adding equality constraints significantly worsen the model fit of the unconstrained model ($\Delta \chi^2$ [130] = 213.29, p < .001), again suggesting that husbands and wives in our data were indeed distinguishable.

Unstandardized coefficients for the estimated model are displayed in Table 5, and key findings are summarized in Online Supplement Figure S2. Regarding H1, we found that neither husbands' (γ = .08, p = .394) nor wives' (γ = .16, p = .156) WFH status was significantly related to their own work task completion, failing to provide support for H1a. Nevertheless, both husbands (γ = .36, p = .003) and wives (γ = .26, p = .002) completed more family tasks when they worked from home (vs. office), supporting H1b. Regarding H2, neither husbands (γ = .08, p = .384) nor wives (γ = .03, p = .716) completed more work tasks when their spouses worked from home (vs. office), providing no support for

Study 2: Mean, standard deviations, intraclass correlation, reliabilities, and bivariate correlations among variables TABLE 4

Variables	-	2	က	4	2	9	7	00	6	10	11	12	13	14
Control Variables – Level 2														
1. Husband employment status	-1	04	16	.10	.10	.15	.20	6.	13	90	26	.01	.10	.04
2. Husband pre-pandemic WFH status		ı	.22	05	14	09	04	90	.32	14	.10	15	08	15
3. Husband WFH preference			1	43	.03	.14	.21	09:	.32	.02	.23	.37	600.	.03
4. Wife employment status				,	.02	20	20	25	20	17	25	08	900'-	007
5. Wife pre-pandemic WFH status					ı	.21	14	.13	11	.14	20	15	90.	16
6. Wife WFH preference						ı	002	.49	.25	.55	.002	60.	22	14
7. Number of children							1	.37	.05	21	14	.13	.23	.19
8. Intraspousal WFH cooperation								1	.20	.11	.07	.21	.27	008
Control/Study Variables – Level 1														
9. Husband daily work flexibility $^{ m a}$									ı	.10	.37	19	10	90.–
10. Wife daily work flexibility a									03	1	.04	.11	19	.01
Study Variables – Husband														
$11.\mathrm{Work} ext{-from-home status}^a$.25	007	1	03	19	14
12. Work task completion ^a									20	02	900.	(.91)	.02	.25
$13.{\sf Familytaskcompletion^a}$									80:	000	.23	21	(.93)	.49
14. Work-family conflict $^{ m b}$									18	90	.05	.23	04	(96)

(Continues)

TABLE 4 (Continued)

Variables	1	7	ო	4	2	9	7	8	6	10	11	12	13	14
15. Family-work conflict ^b									11	.03	.15	.07	.27	.45
$16. Psychological with drawal from family^b$									04	.03	.02	.11	.004	.36
17. Felt guilt toward family $^{ m b}$									07	90.	04	.11	11	.29
18. Psychological withdrawal from work $^{\rm b}$									04	02	.05	.15	90.	.35
19. Felt guilt toward work $^{ m b}$									03	03	90:	.05	.18	.36
Study Variables – Wife														
20. Work-from-home status ^a									.03	.27	90:	.02	08	.005
21. Work task completion ^a									02	22	.02	.07	01	90.
22. Family task completion ^a									02	90:	01	90	02	03
23. Work-family conflict ^b									04	19	.007	.05	.002	.05
24. Family-work conflict ^b									008	009	.02	007	03	.10
$25.Psychologicalwith drawalfromfamily^b$.001	18	.07	.04	004	004
26. Felt guilt toward family $^{\mathrm{b}}$									009	10	80:	04	90.	.002
27. Psychological withdrawal from work $^{\rm b}$									08	14	.02	90.	002	004
28. Felt guilt toward work $^{\mathrm{b}}$									03	09	.02	.02	.04	06
Σ	76.	.33	.57	.73	.49	.37	98.	.31	49.	.54	.48	3.30	2.28	2.34
Within-person SD	1	1	ı	ı	1	ı	ı	1	.28	.34	.41	89.	99.	.53
Between-person SD	.19	.83	.50	44.	.98	.49	.81	.36	.39	.36	.29	09:	.62	77.
ICC(1)	1	1	ı	ı	1	1	ı	ı	1	1	ı	.39	.43	.65
														(Continues)

TABLE 4 (Continued)

Variables	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Control Variables – Level 2														
1. Husband employment status	02	03	05	006	05	19	.03	60:	05	06	08	09	01	08
2. Husband pre-pandemic WFH status	10	05	04	009	02	.14	26	03	.10	.12	.31	.17	.04	.30
3. Husband WFH preference	05	.13	04	.02	13	.31	.20	.10	80:	90:	.13	.11	.02	.02
4. Wife employment status	10	14	07	03	008	30	.16	.01	04	07	17	09	.12	01
5. Wife pre-pandemic WFH status	004	007	.03	.03	.02	60.	.03	001	10	05	13	90	09	04
6. Wife WFH preference	23	20	20	21	30	.30	60.	.18	.14	90.	02	90.–	13	.002
7. Number of children	.20	60:	.13	.04	.16	.02	90:	9.	80:	.02	.01	.002	31	18
8. Intraspousal WFH cooperation	004	02	90.–	10	11	.31	80:	.28	.16	.12	.03	90.	05	01
Control/Studied Variables – Level 1														
9. Husband work flexibility a	.14	.07	.10	.18	.15	.31	90.–	02	.16	.21	.26	.22	07	.17
10. Wife work flexibility $^{\rm a}$	09	08	08	03	12	.26	05	80:	.05	.05	04	000	11	04
Study Variables – Husband														
$11. \text{Work-from-home status}^{\text{a}}$.07	.13	.009	.10	02	.14	10	05	90:	.07	.18	.29	.33	.35
12. Work task completion ^a	26	14	26	12	34	.27	.36	.28	60:	.12	15	06	.14	01
13. Family task completion ^a	.57	.32	.40	.38	.49	07	80.	.13	.21	.23	05	90.–	07	18
14. Work-family conflict $^{ m b}$.67	.47	.47	.53	.56	18	.22	.22	.29	.31	.03	.10	.13	90.

TABLE 4 (Continued)

Variables	15	16	17	18	19	20	21	22	23	24	25	26	27	28
15. Family-work conflict ^b	(96)	.78	.81	.83	.90	09	05	.07	.31	.36	.21	.20	.08	80:
$16. \text{Psychological withdrawal from family}^{\text{b}}$.46	(.84)	.82	.85	77.	11	90.	11	.15	.22	.25	.19	.29	.12
17. Felt guilt toward family $^{ m b}$.33	.56	(.89)	.83	88.	19	.02	14	.18	.21	.31	.26	60.	.11
18. Psychological withdrawal from work $^{\rm b}$.34	.37	.36	(.73)	.83	04	06	.02	.21	.28	.24	.25	.22	.22
19. Felt guilt toward work $^{\mathrm{b}}$	44.	.31	.40	.50	(.93)	17	08	11	.22	.29	.22	.23	90:	.12
Study Variables – Wife														
20. Work-from-home status ^a	.005	01	.02	04	03	ı	22	.25	.19	.29	.19	.11	.14	.21
21. Work task completion ^a	.03	.07	.11	.04	.04	90:	(.94)	.16	.02	90	20	12	13	30
$22.\mathrm{Family}\mathrm{task}\mathrm{completion}^{\mathrm{a}}$	06	04	06	05	01	.15	.02	(.88)	.40	.31	.11	.23	09	.12
23. Work-family conflict ^b	02	01	.01	.03	90.	.03	.32	90:	(96)	.91	.65	69.	.36	.53
24. Family-work conflict ^b	009	.07	.01	.03	.01	.16	.13	.18	.37	(96')	.61	.63	.43	.54
$25.Psychologicalwith drawalfromfamily^b$	09	.02	002	.07	.07	01	.10	.11	.36	.45	(.76)	.80	.45	.63
26. Felt guilt toward family $^{\mathrm{b}}$	04	05	05	01	.05	07	.03	90:	.25	.42	.61	(06.)	74.	.83
27. Psychological withdrawal from work $^{\rm b}$.003	90.	04	.08	90.	.02	.10	90:	.45	.34	.38	.34	(276)	.62
28. Felt guilt toward work $^{\mathrm{b}}$	05	03	06	02	.07	02	.03	40.	.29	.29	.27	.40	.55	(.92)
Σ	2.11	2.05	1.97	2.09	1.88	.61	2.99	2.67	2.24	2.15	2.20	1.76	2.03	1.69
Within-person SD	.49	.49	.50	.47	.43	.41	.74	69:	.56	.56	.58	.51	.55	.51
Between-person SD	89.	.63	.65	.67	.74	.27	.73	.71	.76	.73	.67	09:	.71	.71
ICC(1)	.63	.59	.59	.64	.73	ı	.45	.48	.62	09:	.54	.55	.59	.63

Note. N = 773 at Level 1 and 57 at Level 2. Work-from-home status was coded as 0 = working from office and 1 = working from home. Correlations below (above) the diagonal were calculated at Level 1 (Level 2). Cronbach's alpha coefficients are in the parentheses.

^aMeasures in the early evening survey.

^bMeasures in the bedtime survey.

Level 1 correlations; for |r| > .08, p < .05; for |r| > .10, p < .01. Level 2 correlations; for |r| > .27, p < .05; for |r| > .34, p < .01.

Study 2: Unstandardized coefficients of the estimated model TABLE 5

Variables	Husbar task co	Husband work task completion	Husban task con	Husband family task completion	Wife work task completion	irk task ion	Wife family completion	Husband Wife family task work-family completion conflict	Husband work-fan conflict	ally	Husband family-work conflict	ork	Wifewor	rk-family	y Wife fan conflict	Wife work-family Wife family-work conflict
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE
Intercept	3.37	.07	2.29	80:	2.99	.10	2.65	.08	2.40	.11	2.14	60:	2.24	.10	2.12	.10
Control Variables – Level 2																
Own employment status	.21	.16	.14	.47	*48.	.17	.26	.19	002	.26	31	.22	.02	.20	03	.20
Own pre-pandemic WFH status	13	60.	.002	.11	.02	.09	007	.11	12	.07	03	90:	10	60:	05	.10
Own WFH preference	**89.	.19	30	.20	.39	.31	.21	.21	.24	.30	08	.24	.33	.26	90:	.24
Number of children	.03	60.	.14	.10	90:	.13	.36	.11	.21	.13	.22	.15	.01	.12	03	.10
Intraspousal WFH cooperation	13	.26	**09.	.23	03	.37	.14	.26	33	.38	09	.28	.17	.31	.18	.31
Control Variables – Level 1																
Own work flexibility	**	.14	.002	.16	50	.14	90:	.11	27	.12	20	60.	23	60:	05	.07
Study Variables - Husband																
Work-from-home status (A) .08	80. (.10	.36	.12	.03	90.	02	90.	.10	90:	*15	90:	.02	90:	.02	.07
Spouse's work flexibility (B)03	03	.10	.02	80.					09	.07	9.	90.				
																(Continues)

(Continued) **TABLE 5**

Variables	Husb. task c	Husband work task completion		Husband family Wife work task Wife family task work-family task completion completion completion	Wife work t	ork task tion	Wife family completion	nily task ion	Husband work-fan conflict	d mily	Husband family-work conflict	work	Wifewo	ork-famil) t	y Wife faı conflict	Wife work-family Wife family-work conflict
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE
A×B	.26	.14	33*	.17	.13	.15	09	.11	19	80.	90	60:				
Work task completion									.15	.05	.07	.05	.02	9.	01	.04
Family task completion									004	90:	.20	.05	.01	90.	01	.04
Work-family conflict																
Family-work conflict																
Study Variables – Wife																
Work-from-home status (C) .08	80. (60:	20	80.	.16	.11	.26	90.	.01	.05	.02	.05	9.	80.	.19	.07
Spouse's work flexibility (D)					09	.11	07	.07					06	80:	.03	.08
CxD	.01	.17	.33	.13	*32	.13	03	.16					.22	.14	60:	.14
Work task completion									.03	.02	.02	.02	.21	9.	*60:	.04
Family task completion									02	.03	04	.03	90:	.05	.13	.04
Work-family conflict																
Family-work conflict																
Residual variances at Level 1	**74.	.07	* * *	.05	.55	.07	.50	.05	.28	.04	.23	9.	*30*	9.	.31	.03
Residual variances at Level 2	.23	.05	.32	90:	**	.10	.33	.07	.51	60.	**38	.07	** 49.	.13	.42	.12
R^2		.38		.25		.21		.28		.22		.24		.25		.10
																(Continues)

(Continues)

TABLE 5 (Continued)

Variables	Husband psychological withdrawal fr family	Husband psychological withdrawal from family		d felt guil family	Husband psychological t withdrawal fr work	Husband Wife psychological psychological psychological Husband felt guilt withdrawal from Husband felt guilt withdrawal from toward family work toward family toward family	Husband felt toward work	l felt guill vork	Wife psychological t withdrawal fro family	ogical wal from	Wife felt guilt toward family	t guilt family	Wife psychological withdrawal fro	Wife psychological withdrawal from Wife felt guilt work toward work	Wife felt guil toward work	: guilt vork
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE
Intercept	2.05	80:	1.97	60:	2.10	60.	1.89	60:	2.20	.09	1.77	80:	2.05	60:	1.71	60.
Control Variables – Level 2																
Own employment status	009	.18	30	.18	.02	.16	47	.17	27	.17	12	.16	.08	.15	90	.17
Own pre-pandemic WFH status	08	.07	03	80:	04	90:	.007	90:	08	.07	03	.07	10	90:	05	.08
Own WFH preference	.34	.22	03	.22	.18	.24	19	.25	90:	.22	13	.20	18	.19	.02	.31
Number of children	60:	.10	.15	.12	.07	.11	.23	.14	90	.08	90	80:	36	.11	- .20*	60.
Intraspousal WFH cooperation	40	.30	19	.27	38	.31	23	.30	.03	.26	.26	.27	.42	.31	.14	.36
Control Variables – Level 1																
Own work flexibility	*15	.07	60:	60:	.13	.07	.11	60.	22	.08	07	.05	13	.07	09	.10
Study Variables – Husband																
Work-from-home status (A)06	90 (90:	10	90.	01	.05	04	.04	.11	.05	*11	.05	90.	.05	.05	.04
Spouse's work flexibility (B) .06	90. (.05	.09	.05	.01	.07	01	.04								

(Continues)

(Continued) TABLE 5

Ax B Se Est SE Est SE SE Est SE SE <t< th=""><th>toward family work</th><th>psychological Husband felt guilt withdrawal from Hu toward family work to</th><th>Husband felt guil toward work</th><th>psychological Husband felt guilt withdrawal from toward work family</th><th>Wife felt guilt toward family</th><th>psychological withdrawal fro work</th><th>psychological withdrawal from Wife felt guilt work toward work</th></t<>	toward family work	psychological Husband felt guilt withdrawal from Hu toward family work to	Husband felt guil toward work	psychological Husband felt guilt withdrawal from toward work family	Wife felt guilt toward family	psychological withdrawal fro work	psychological withdrawal from Wife felt guilt work toward work
on .06 .08 .23** .08 .06 .06 .00 .00 .00 .00 .00 .00 .00 .00	Est SE	SE Est	SE	Est SE	Est SE	Est SE	Est SE
on .03 .04 .005 .03 .07 tion07* .0312** .04 .02 tt .16** .05 .14* .07 .22** tt .43** .08 .34** .08 .23** tatus(C)07 .0402 .0406	.23** .08	.07 –.08	80. 81				
tion07* .0312** .04 .02 1. 1.6** .05 .14* .07 .22** 143** .08 .34** .08 .23** tatus (C)07 .0402 .0406	.005 .03		.008 .03	.05 .03	02 .03	.02 .03	.03 .04
t .16** .05 .14* .07 .22** t .43** .08 .34** .08 .23** tatus(C)07 .0402 .0406	12** .04		.07* .03	.02 .03	.06 0.04	007	.03 .04
tatus (C)07 .0402 .0406	.14* .07		.18 .06	05 .07	02 .06	*00	*00.–
tatus (C)07 .0402 .0406 oility (D)	.34**		.29** .07	90. 80	06 .05	90. 50.	02 .06
-from-home status (C) –.07 .04 –.02 .04 –.06 ie's work flexibility (D)							
Spouse's work flexibility (D)	02 .04	.04 –.02	.03	05 .06	14** .05	90. 000.	04
2				90. 60.	03 .05	14 .08	05 .05
Č×,				12 .08	01 .07	.03 .10	.01 .09
Work task completion .04 .03 .08* .03 .007 .03	*80.	.03	.007 .03	03 .04	04	05 .04	05 .04
Family task completion01 .0303 .0202 .03	03 .02		.01 .02	.03 .04	.001 .04	.007	003 .04
Work-family conflict04 .04006 .02 .01 .04	006 .02		.05 .03	.22** .07	.11* .05	.37** .06	.21** .06
Family-work conflict .07 .05007 .04 .02 .05	007	.05 –.01	11 .03	.40** .05	.38** .05	.22 ** .06	.22** .05
.03	.22** .03		.15** .03	.26** .03	.22** .02	.24**.03	.24** .03
Residual variances at Level 2 .30 .36 .34 .07 .36 .07	.34** .07 .36	.07	.42** .09	.33** .13	.27** .08	.33** .09	.40** .15
R ² .30 .21 .18		.18	.30	.34	.25	4.	.19

H2a. In addition, husbands completed fewer family tasks when their spouses worked from home (vs. office; $\gamma = -.20$, p = .013), but the same effect was not significant for wives ($\gamma = -.02$, p = .793). H2b was partially supported.

We also found some support for the hypothesized moderation role of spouse work flexibility. Specifically, for wives, their spouses' work flexibility significantly moderated the relationship between their own WFH status and work task completion ($\gamma = .32$, p = .018), although the same moderation effect was not significant for husbands ($\gamma = .26$, p = .061). Simple slope analysis (see Online Supplement Figure S3) showed that wives completed significantly more work tasks when working from home (vs. office) on days in which their spouses' work schedule was flexible ($\gamma = .31$, p = .018), whereas wives' work task completion did not differ significantly when working from home versus working in office on days in which their spouses' work schedule was not flexible ($\gamma = -.01$, p = .982). This finding suggests husbands' work flexibility can help wives complete more work tasks when working from home. Thus, H3a was partially supported. At the same time, we found that for husbands, their spouses' work flexibility significantly moderated the relationship between their own WFH status and family task completion ($\gamma = -.33$, p = .045), although the same moderation effect was not significant for wives ($\gamma = -.03$, p = .831). Probed further (see Online Supplement Figure S4), husbands completed significantly more family tasks when working from home (vs. office) on days in which their spouses' work schedule was not flexible ($\gamma = .52$, p = .001), whereas husbands' family task completion did not differ significantly when working from home versus working in office on days in which their spouses' work schedule was flexible ($\gamma = .19$, p = .142). Thus, the impact of husbands' WFH status on their family task completion was stronger when wives' work flexibility was lower. H3b was partially supported.

Moreover, both husbands' ($\gamma = .15$, p = .003) and wives' ($\gamma = .21$, p < .001) work task completion positively associated with their own WFC. Both husbands' and wives' WFC was then positively associated with their psychological withdrawal from family ($\gamma = .16$, p = .004 for husbands; $\gamma = .22$, p = .002 for wives) and felt guilt toward family ($\gamma = .14$, p = .036 for husbands; $\gamma = .11$, p = .019 for wives). Table 3 shows the indirect effect of work task completion on psychological withdrawal from family via WFC was significant for both husbands (95% CI = [.005, .049]) and wives (95% CI = [.018, .076]), supporting H4a. Table 3 also shows the indirect effect of work task completion on felt guilt toward family via WFC was significant for both husbands (95% CI = [.001, .050]) and wives (95% CI = [.003, .043]), supporting H4b. In addition, both husbands' ($\gamma = .20$, p < .001) and wives' ($\gamma = .13$, p < .001) family task completion were positively associated with their own FWC, which was then positively related their psychological withdrawal from work ($\gamma = .23$ for husbands and $\gamma = .22$ for wives; ps < .001) and felt guilt toward work ($\gamma = .29$ for husbands and $\gamma = .22$ for wives; ps < .001). Table 3 shows that these indirect effects were significant for both husbands (95% CI = [.016, .087] for psychological withdrawal from work and 95% CI = [.020, .114] for felt guilt toward work) and wives (95% CI = [.009, .055] for psychological withdrawal from work and 95% CI = [.010, .052] for felt guilt toward work), supporting H5a and H5b.

As for the crossover effect of work task completion, we found that one's own work task completion was not significantly related to their spouse's FWC (γ = -.01, p = .796 for husbands and γ = .02, p = .335 for wives). Table 3 shows that the indirect effect of one's own work task completion on their spouse's psychological withdrawal from work via the spouse's FWC was not significant for neither the crossover from husbands to wives (95% CI = [-.020, .015]) nor the crossover from wives to husbands (95% CI = [-.004, .015]), failing to support H6a. Similarly, these indirect effects were not significant when felt guilt toward work was the outcome for neither the crossover from husbands to wives (95% CI = [-.020, .016]) nor the crossover from wives to husbands (95% CI = [-.004, .020]), failing to support H6b. Regarding the crossover effect of family task completion, we found that one's own family task completion was not significantly related to their spouse's WFC (γ = .01, p = .775 for husbands and γ = -.02, p = .594 for wives). Table 3 shows that the indirect effect of one's own family task completion on their spouse's psychological withdrawal from work via the spouse's WFC was not significant for neither the crossover from husbands to wives (95% CI = [-.016, .018]) nor the crossover from wives to husbands (95% CI = [-.015, .005]), failing to support H7a. Similarly, these indirect effects were not significant when felt guilt toward work was the outcome for neither the crossover from husbands to wives (95% CI = [-.010, .007]) nor from wives to husbands (95% CI = [-.016, .004]), failing to support H7b.

To examine the research questions on differences between husbands and wives on the crossover effects, we found that the crossover effects of one partner's WFH status on the other partner's work task completion (d = .10, t = 1.07,

p = .284) and family task completion (d = .18, t = 1.44, p = .150) did not differ significantly between husbands and wives. In addition, given the crossover effects proposed in H5 and H6 did not receive support for neither husbands nor wives, further comparing these indirect effects would not be meaningful. Thus, we conclude that we did not find any evidence for gender-based disparities in this study.

7 | GENERAL DISCUSSION

Our research draws on family systems theory to provide an integrative account on how WFH leads to intra-individual and inter-individual influences on dual-earner couples' work and family experiences. Our findings across two samples of dual-earner couples convergingly revealed that: (1) working from home (vs. in office) increased one's family task completion; (2) a crossover effect of one's own WFH on spouse's family task completion existed, especially from wives to husbands such that wives' WFH (vs. in office) reduced husbands' family task completion; (3) work task completion increased WFC, which further increased psychological withdrawal from family among husbands and wives (available in Study 2 only) and felt guilt toward family among wives; (4) family task completion increased FWC, which further increased psychological withdrawal from work and felt guilt toward work (available in Study 2 only), among husbands and wives. We also found in Study 2 that the effects of one's own WFH on work task completion (for wives only) and on employee family task completion (for husbands only) depended on their spouse's work flexibility. When wives worked from home they completed more work tasks than when working in office on days that their husbands had flexible work schedules. As for husbands, they completed more family tasks when working from home compared to working in office on days when their wives had less work flexibility.

Nonetheless, some of our hypothesized relationships failed to receive support in neither study. We found neither husbands' nor wives' WFH status influenced wives' work task completion. We also did not find significant crossover effects of one's family task completion on their spouse's WFC in neither study. We discussed these non-significant findings later in the Theoretical Contributions section. Furthermore, several inconsistencies between Study 1 and Study 2 results are worth noting. Regarding intra-individual influences, we found that working from home (vs. in office) decreased husbands' work task completion in Study 1 but the same relationship was not significant in Study 2. Husbands' WFC was positively related to their felt guilt toward family in Study 2 but not in Study 1. In terms of interindividual influence, across both studies, our findings showed that husbands completed fewer family tasks when wives worked from home (vs. in office). However, a similar crossover effect from remote working husbands to wives was only found in Study 1 but not in Study 2. Further, the crossover effects of one partner's work task completion on the other partner's FWC and psychological withdrawal from work were only found in Study 1 but not in Study 2. The phases of a crisis (i.e., the timing of the data collection) might explain the differences in findings between the two studies. Data in Study 1 were collected earlier in the pandemic when people were still struggling to adapt to the changes associated with the crisis, so couples (especially husbands) might have reacted more strongly to remote work and their spouses' increased work involvement. Data in Study 2 were obtained when people had been through the ups and downs of the pandemic for over 1 year and a half, so they may have gained more experiences of coping with the changes, such as being able to get their work tasks done regardless of their whereabouts (i.e., office vs. home).

7.1 | Theoretical contributions

By applying family systems theory and boundary work to the unique context of COVID-19 pandemic, our research contributes new insights on how both members of dual-earner couples manage both work and family demands while working from home. A crisis has the potential to increase time pressures to make decisions over what concerns should take precedence (Freeman et al., 2007) and cause disruptions to the family systems (Kahn et al., 2013). We connect research on family systems, remote work, and crisis and propose a comprehensive model to unpack how

dual-earner couples respond to remote work accelerated by the pandemic. We explain how WFH status creates intra-individual influences on employees' work and family task completion and generates inter-individual influences on their spouses' experiences and feelings for work and family. Our findings enable a deeper understanding of the increased interdependence of dual-earner couples in the home working environment.

Our framework extends prior research by considering the dynamic influence of WFH on dual-earner couples via three layers of inter-individual influences and three layers of intra-individual influences. Building upon Booth-LeDoux et al. (2020), we argue that the transmission process continues, and expand the model to show that employees' work task completion and family task completion further influence their own and spouses' psychological experiences at work and at home. We more accurately account for the interdependence of dual-earner partners and consider both partners' crossover influences (Shockley & Allen, 2018). Furthermore, we found that spouse work flexibility is an important determinant of employees' responses to WFH status but it matters to both partners in different ways. Specifically, on days when husbands had flexible work schedules and procedures, wives completed significantly more work tasks when working from home (vs. office), and on days when wives had inflexible work arrangements, husbands completed significantly more family tasks when working from home (vs. office). The findings suggest that husbands could help remote working wives when they have more flexible work schedules and do more family tasks when their wives have more rigid work schedules. Our extensions to research on work-family interface and gender roles are important because the findings not only reveal the dynamic interrelatedness across microsystems and between mesosystems (Hammer et al., 2003) but also lend theoretical and empirical rigor to the assertions that husbands may assume a more supportive role in dual-earner family systems than they do traditionally as breadwinners (Edwards & Rothbard, 2000).

Our research also takes a step further by raising questions about whether gender disparities exist in the crossover influences of WFH on work and family experiences in dual-earner couples. The COVID-19 pandemic has created upheaval in employees' lives, posing possible changes in gender-based behavior patterns. We discovered that work task completion increased feelings of guilt toward family owing to increased WFC among wives in both studies, and among husbands only in Study 2. We also found in Study 1 that wives' WFH increased husbands' work task completion but not the other way around, which mirrors the traditional gendered expectation such that women (vs. men) are more considerate of their spouses' and families' needs when they work from home. This finding was not supported in Study 2. Moreover, across both studies, we found no significant gender differences in the crossover effects of work task completion and family task completion on the daily psychological experiences of dual-earner couples through their WFC and FWC. The overall lack of findings of differentiated crossover effects between husbands and wives may be explained by the egalitarian coping strategies that many dual-earner couples may have adopted during the pandemic (Shockley, Clark, et al., 2021) and the potential changes in the division of work and household activities caused by the pandemic. This lack of gender difference also aligns with the meta-analysis based on studies conducted before the COVID-19 pandemic that stated that women and men did not differ in their WFC and FWC reports (Shockley et al., 2017). Interestingly, we do not find support on the benefits of wives' high work flexibility for husbands' work task completion. It is possible that women may check in more with family issues regardless of their work arrangement (Kreiner et al., 2009) and that women's flexible work schedules may not benefit their husbands much. We encourage researchers to unpack the complexity of differences between women and men in navigating family and work demands further.

Our research was conducted against the backdrop of COVID-19, fueling a wave of anxiety and shock that may have blurred the gender differences in the crossover effects in the family systems. Thus, one partner's family contribution in a crisis may have a weaker influence on another's than during regular times. It is worth considering to what extent our findings can be applied to other times. First, our study findings may be generalized to other times that share some characteristics of the current pandemic, such as another crisis or emergency that can suddenly increase family demands and require employees to work from home (Kahn et al., 2013; Shockley, Clark, et al., 2021). Second, as a landscape-scale crisis, the changes COVID-19 is inflicting on families could last for a long time, and the implications of our study findings may apply to the post-crisis times. At least, for the foreseeable future, the COVID-19

crisis can dramatically change how employees work (e.g., remote work) and how dual-earner couples fulfill work and family duties. Third, although we acknowledge that the interrelatedness among dual-earner couples is particularly strong during the pandemic due to decreased availability of external support for family tasks, our theoretical development about remote work is not restricted within a particular context. We expect that our findings should apply to telecommuting in post-pandemic times. According to Study 2, regardless of pre-pandemic WFH status or whether WFH was a requirement or a choice, pandemic-triggered remote work impacted individuals' micro and mesosystems. The pandemic may have a lingering effect on the relational systems of dual-earner couples even when we are back to normal. Although appealing, because the impact of COVID-19 is unprecedented in living memory, we would like to encourage future research to evaluate the generalizability of our findings when we enter normal phases again.

7.2 | Practical implications

Our findings provide timely implications for practice. When the boundaries of work and family are permeable, dual-earner couples may feel their time and attention are diverted from their jobs and held in the family domain, thus increasing psychological withdrawal from family and resulting in feelings of guilt. This understanding may help them mentally prepare for the outcomes of WFH. In addition, the crossover influences show that the presence of a WFH spouse can help the focal employee deal with family work. As such, although the COVID-19 crisis is an emotionally challenging event, dual-earner couples can respond to the crisis as a team and promote efficiency in both their work and family domains. Our findings show that when employees work from home during the COVID-19 pandemic, they have increased family task completion, which then increased their FWC, psychological withdrawal, and feelings of guilt toward work. Managers should form realistic expectations about how much work their remote employees can effectively handle and show more understanding of dual-earner couples' home working situations. In addition, our findings show that for dual-earner couples, husbands can provide more resources and support for their wives to complete remote work tasks when they have flexibility in scheduling their work time and procedure. Organizations and decision makers may find it particularly useful to empower their male employees with flexibility so they and their families can better adapt to the crisis and restore the balance of their family systems.

7.3 Limitations and future directions

Our research is subject to several limitations that point directions for future studies. First, our primary focus is on dual-earner couples and how the WFH status affects their work and family involvement. Our samples include dual-earner couples with children (all in Study 1 and some in Study 2) and without children (some in Study 2), and the two studies offer converging results. We expect that our theoretical development applies to both remote working dual-earner couples with and without children. In the pandemic, childless dual-earner couples may also need to handle increased family tasks such as preparing for meals and cleaning houses, which could be outsourced before. However, the pandemic may cause a particular burden to dual-earner couples with young children because many childcare-related services, such as daycares and indoor play places, have closed permanently, or reduced their capacity and increased their prices to cover COVID-19-related costs. Although our supplemental analysis of Study 2 data (see Online Supplement S2 and Figure S5) shows our main findings with couples with and without children combined largely held for the subsample of couples with children, we did not conduct a supplemental analysis for the subsample of couples without children due to its small sample size and insufficient statistical power. We encourage future research to cross-validate our findings with a larger and more balanced sample of dual-earner couples with and without children.

Second, we studied two samples of dual-earner couples across several workdays during different stages of the COVID-19 crisis. Still, this crisis continues to evolve with an unclear ending, causing significant shifts in daily life. When we collected data in Study 2, many non-essential businesses have reopened, and some of our surveyed employees had the option to return to on-site work. Our proposed relationships were held when the remote work choice (vs. necessity) and pre-pandemic work mode were controlled for. It is likely that during the pandemic, people are more likely to choose to work from home because of increased health concerns and family responsibilities. When pandemic-associated concerns recede, will dual-earner couples adopt regulation strategies to achieve better each partner's work and family goals? Will regulation strategies make employees more productive and generate work-family enrichment instead of conflicts? These are meaningful questions for future research to answer.

Third, our data was collected from dual-earner couples in two Eastern cultures, i.e., China and South Korea, which increased the external validity of work-family theories that originated in the west. Scholars have called for the inclusion of samples from non-Western cultural settings in work-family research (Casper et al., 2007). Yet, it still is open to question whether our findings can be generalized to other places around the world such as United States and India, the countries with the highest rates of COVID-19 cases worldwide (BBC News, 2022). Furthermore, despite representing two distinct cultures, both China and South Korea are considered as collectivistic societies (Hofstede Insights, n.d.). Meta-analysis has shown that WFC/FWC has a weaker influence on employee attitudes in collectivistic cultures than in individualistic cultures (Allen et al., 2020). We encourage more cross-cultural comparisons to understand how dual-earner couples are managing their work and family issues during the COVID-19 crisis.

8 | CONCLUSION

Our findings revealed that WFH status exerted intra-individual and inter-individual influences on dual-earner couples' work and family experiences. Moreover, spouses' work flexibility altered the influences of employees' WFH status on their own work and family task completion. We hope our findings will inspire future research to better understand how WFH status influences how dual-earner couples meet work and family responsibilities.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the first author upon reasonable request.

ORCID

Jia (Jasmine) Hu https://orcid.org/0000-0002-5182-9260
Yihao Liu https://orcid.org/0000-0002-7067-6482

ENDNOTES

- ¹The exception was WFH status, which was a binary variable and would be meaningless if its respective group mean (i.e., different means for different individuals) were deducted from the raw score. Instead, we deducted 0.5 from its raw score so that -0.5 represents working in office and .5 represents working from home, with a theoretical mean of 0.
- ² In a supplementary analysis, we examined whether husbands' and wives' WFH status interacted with each other in influencing their work-family experiences. Specifically, on the basis of our main model, we created the interaction term between husbands' and wives' WFH status and specified its effect on all endogenous variables in our model. Results showed that the interaction term was not significantly related to any of the endogenous variables, suggesting that the effect of husbands' and wives' WFH status was independent rather than interactive by nature in this study.
- ³ Following Kenny and Lederman (2010), we computed the k parameter, defined as the ratio of the partner effect to the actor effect, for each of the relationships between WFH and work/family task completion to better understand the patterns of partner dynamics in this study. We found that for the relationship between WFH status and work task completion, the k parameter for husbands was -1.74 (95% CI = [-3.573, -0.254]), whereas k for wives could not be computed because the actor effect for wives did not significantly differ from zero. For the relationship between WFH status and family task completion, the k parameter for husbands and wives was -0.43 (95% CI = [-0.898, -0.044]) and -0.93 (95% CI = [-1.703,

- -0.331]), respectively. Given the three ks we obtained all assumed significant negative values, we believe a *contrast* pattern emerged here such that the actor and partner effects had opposite signs between WFH status and work/family task completion.
- ⁴ In a supplemental analysis, we examined if one's own work flexibility moderated the impacts of one's own WFH status on their own work/family task completion as well as their spouse's work/family task completion, but did not find any significant moderation effect
- ⁵ Because some couples in Study 2 data had no child whereas others had more than one, we examined whether the number of children played a role in the model. We conducted a supplemental analysis using Study 2 data by adding the number of children as a Level 2 moderator and specified its cross-level moderation effect on the Level 1 relationships between WFH status and work/family task completion, based on the main analysis model reported in the manuscript. Results showed that the number of children did not moderate any of the associations between WFH status and task completion variables, suggesting our findings were not likely to be biased by how many children each family/couple in our sample had.
- ⁶ Same as Study 1, in a supplementary analysis, we also examined whether husbands' and wives' WFH status interacted with each other in influencing their work-family experiences in this study. Results showed that the interaction term between husbands' and wives' WFH status was not significantly related to any endogenous variables in our model with one exception: wives' family task completion ($\gamma = .24$, p = .045). Simple slope test showed that the positive effect of wives' WFH status on their own family task completion was only significant when their husbands worked in office ($\gamma = .36$, p < .001), but not significant when husbands worked from home ($\gamma = .13$, p = .241). Given none of the other endogenous variables was impacted by this interaction term, we believed that the effect of husbands' and wives' WFH status was independent rather than interactive by nature in this study.
- ⁷ Same as Study 1, we computed the k parameters for this study. We could not compute the k parameter for neither husbands nor wives on the relationship between WFH status and work task completion, because the actor effects of this relationship did not significantly differ from 0 for both partners. As for the relationship between WFH status and family task completion, the k parameter for husbands and wives was -0.56 (95% CI = [-1.039, -0.016]) and -0.08 (95% CI = [-0.177, -0.018]), respectively. Given these k parameters assumed significant negative values, we believe a *contrast* pattern was identified here such that the actor and partner effects had opposite signs between WFH status and family task completion.

REFERENCES

- Allen, T. D., Cho, E., & Meier, L. L. (2014). Work-family boundary dynamics. *Annual Review of Organizational Psychology and Organizational Behavior*, 1, 99–121. https://doi.org/10.1146/annurevorgpsych-031413-091330
- Allen, T. D., French, K. A., Dumani, S., & Shockley, K. M. (2020). A cross-national meta-analytic examination of predictors and outcomes associated with work-family conflict. *Journal of Applied Psychology*, 105(6), 539–576. https://doi.org/10.1037/apl0000442
- Allen, T. D., & Martin, A. (2017). The work-family interface: A retrospective look at 20 years of research in JOHP. *Journal of Occupational Health Psychology*, 22(3), 259–272. https://doi.org/10.1037/ocp0000065
- Ashforth, B. E., Kreiner, G. E., & Fugate, M. (2000). All in a day's work: Boundaries and micro role transitions. Academy of Management Review, 25(3), 472–491. https://doi.org/10.5465/amr.2000.3363315
- Baethge, A., & Rigotti, T. (2013). Interruptions to workflow: Their relationship with irritation and satisfaction with performance, and the mediating roles of time pressure and mental demands. Work and Stress, 27, 43–63. https://doi.org/10.1080/02678373.2013.761783
- Bakker, A. B., & Demerouti, E. (2018). Multiple levels in job demands-resources theory: Implications for employee well-being and performance. In E. Diener, S. Oishi, & L. Tay (Eds.), Handbook of well-being. (pp. 1–13). DEF Publishers.
- BBC News. (2022, April 26). Covid map: Coronavirus cases, deaths, vaccinations by country. https://www.bbc.com/news/world-51235105
- Becker, P. E., & Moen, P. (1999). Scaling back: Dual-earner couples' work-family strategies. *Journal of Marriage and the Family*, 61(4), 995–1007. https://doi.org/10.2307/354019
- Beckman, C. M., & Stanko, T. L. (2020). It takes three: Relational boundary work, resilience, and commitment among navy couples. *Academy of Management Journal*, 63(2), 411–439. https://doi.org/10.5465/amj.2017.0653
- Bielby, W. T., & Bielby, D. D. (1989). Family ties: Balancing commitments to work and family in dual earner house-holds. American Sociological Review, 54(5), 776–789. https://doi.org/10.2307/2117753
- Booth-LeDoux, S. M., Matthews, R. A., & Wayne, J. H. (2020). Testing a resource-based spillover-crossover-spillover model: Transmission of social support in dual-earner couples. *Journal of Applied Psychology*, 105(7), 732–747. https://doi.org/10.1037/apl0000460
- Brislin, R. W. (1986). The wording and translation of research instruments. In W. J. Lonner & J. W. Berry (Eds.), Field methods in cross-cultural research. (pp. 137–164). Sage.
- Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. American Psychologist, 32(7), 513–531. https://doi.org/10.1037/0003-066X.32.7.513

- Bronfenbrenner, U., & Morris, P. A. (1998). The ecology of developmental processes. In W. Damon (Ed.), *Handbook of child psychology* (5th ed., Vol. 1, pp. 993-1028). Wiley.
- Carlson, D. S., & Frone, M. R. (2003). Relation of behavioral and psychological involvement to a new four-factor conceptualization of work-family interference. *Journal of Business and Psychology*, 17(4), 515–535. https://doi.org/10.1023/A:1023404302295
- Casper, W. J., Weltman, D., & Kwesiga, E. (2007). Beyond family-friendly: The construct and measurement of singles-friendly work culture. *Journal of Vocational Behavior*, 70(3), 478–501. https://doi.org/10.1016/j.jvb.2007.01.001
- Choroszewicz, M., & Kay, F. (2020). The use of mobile technologies for work-to-family boundary permeability: The case of Finnish and Canadian male lawyers. *Human Relations*, 73(10), 1388–1414. https://doi.org/10.1177/0018726719865762
- Clark, S. C. (2000). Work/family border theory: A new theory of work/family balance. *Human Relations*, 53, 747–770. https://doi.org/10.1177/0018726700536001
- Courtright, S. H., Gardner, R. G., Smith, T. A., McCormick, B. W., & Colbert, A. E. (2016). My family made me do it: A cross-domain, self-regulatory perspective on antecedents to abusive supervision. Academy of Management Journal, 59(5), 1630–1652. https://doi.org/10.5465/amj.2013.1009
- Desrochers, S., Hilton, J. M., & Larwood, L. (2005). Preliminary validation of the work-family integration-blurring scale. *Journal of Family Issues*, 26(4), 442–466. https://doi.org/10.1177/0192513/04272438
- Eagly, A. H. (1987). Sex differences in social behavior: A social-role interpretation. Lawrence Earlbaum Associates.
- Eagly, A. H., & Steffen, V. J. (1984). Gender stereotypes stem from the distribution of women and men into social roles. *Journal of Personality and Social Psychology*, 46(4), 735–754. https://doi.org/10.1037/0022-3514.46.4.735
- Eagly, A. H., & Wood, W. (1999). The origins of sex differences in human behavior: Evolved dispositions versus social roles. American Psychologist, 54(6), 408–423. https://doi.org/10.1037/0003-066X.54.6.408
- Edwards, J. R., & Rothbard, N. P. (2000). Mechanisms linking work and family: Clarifying the relationship between work and family constructs. *Academy of Management Review*, 25(1), 178–199. https://doi.org/10.2307/259269
- Eurostat. (2022, June 1). Statistics on employment characteristics of households. Retrieved August 16, 2022 from https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Statistics_on_employment_characteristics_of_households#Overview_of_employment_in_EU_households
- Feldman, D. C., & Gainey, T. W. (1997). Patterns of telecommuting and their consequences: Framing the research agenda. Human Resource Management Review, 7(4), 369–388. https://doi.org/10.1016/s1053-4822(97)90025-5
- Feldman, M. S. (2004). Resources in emerging structures and processes of change. *Organization Science*, 15(3), 295–309. https://doi.org/10.1287/orsc.1040.0073
- Freeman, R. E., Harrison, J., & Wicks, A. C. (2007). Managing for stakeholders: Business in the 21st century. Yale University Press. Gajendran, R. S., & Harrison, D. A. (2007). The good, the bad, and the unknown about telecommuting: Meta-analysis of psychological mediators and individual consequences. Journal of Applied Psychology, 92(6), 1524–1541. https://doi.org/10.1037/0021-9010.92.6.1524
- Glavin, P., Schieman, S., & Reid, S. (2011). Boundary-spanning work demands and their consequences for guilt and psychological distress. *Journal of Health and Social Behavior*, 52(1), 43–57. https://doi.org/10.1177/0022146510395023
- Golden, T. D., Veiga, J. F., & Simsek, Z. (2006). Telecommuting's differential impact on work-family conflict: Is there no place like home? *Journal of Applied Psychology*, 91(6), 1340–1350. https://doi.org/10.1037/0021-9010.91.6.1340
- Grant, A. M., & Wrzesniewski, A. (2010). I won't let you down... or will I? Core self-evaluations, other-orientation, anticipated guilt and gratitude, and job performance. *Journal of Applied Psychology*, 95(1), 108–121. https://doi.org/10.1037/a0017974
- Greenhaus, J. H., Allen, T. D., & Spector, P. E. (2006). Health consequences of work-family conflict: The dark side of the work-family interface. In P. L. Perrewe & D. C. Ganster (Eds.), Research in occupational stress and well-being (Vol. 5, pp. 61–98). JAI Press/Elsevier.
- Griffin, M. A., Neal, A., & Parker, S. K. (2007). A new model of work role performance: Positive behavior in uncertain and interdependent contexts. *Academy of Management Journal*, 50(2), 327–347. https://doi.org/10.5465/AMJ.2007.24634438
- Hall, D. T., & Richter, J. (1988). Balancing work life and home life: What can organizations do to help? *Academy of Management Perspectives*, 2(3), 213–223. https://doi.org/10.5465/ame.1988.4277258
- Halpern, D. F., & Murphy, S. E. (2005). From balance to interaction: Why the metaphor is important. In D. F. Halpern & S. E. Murphy (Eds.), From work-family balance to work-family interaction (pp. 3–10). Erlbaum.
- Hammer, L. B., Bauer, T. N., & Grandey, A. A. (2003). Work-family conflict and work-related withdrawal behaviors. *Journal of Business and Psychology*, 17(3), 419–436. https://doi.org/10.1023/a:1022820609967
- Hammer, L. B., Cullen, J. C., Neal, M. B., Sinclair, R. R., & Shafiro, M. V. (2005). The longitudinal effects of work-family conflict and positive spillover on depressive symptoms among dual-earner couples. *Journal of Occupational Health Psychology*, 10(2), 138–154. https://doi.org/10.1037/1076-8998.10.2.138
- Hochschild, A. (1989). The second shift. Avon Books.
- Hofmann, D. A., & Gavin, M. B. (1998). Centering decisions in hierarchical linear models: Implications for research in organizations. *Journal of Management*, 24(5), 623–641. https://doi.org/10.1177/014920639802400504

- Hofstede Insights. (n.d.). Country comparison. Retrieved August 16, 2022, from https://www.hofstede-insights.com/country-comparison/south-korea,the-usa/
- Holcomb, P., Pavetti, L., Ratcliffe, C., & Reidinger, S. (1998). Building an employment focused welfare system: Work first and other work-oriented strategies in five states. The Urban Institute.
- Ilies, R., Schwind, K. M., Wagner, D. T., Johnson, M. D., DeRue, D. S., & Ilgen, D. R. (2007). When can employees have a family life? The effects of daily workload and affect on work-family conflict and social behaviors at home. *Journal of Applied Psychology*, 92(5), 1368–1379. https://doi.org/10.1037/0021-9010.92.5.1368
- James, E. H., Wooten, L. P., & Dushek, K. (2011). Crisis management: Informing a new leadership research agenda. Academy of Management Annals, 5(1), 455–493. https://doi.org/10.5465/19416520.2011.589594
- Jennings, J. E., & McDougald, M. S. (2007). Work-family interface experiences and coping strategies: Implications for entrepreneurship research and practice. Academy of Management Review, 32(3), 747–760. https://doi.org/10.5465/amr. 2007.25275510
- Jett, Q. R., & George, J. M. (2003). Work interrupted: A closer look at the role of interruptions in organizational life. Academy of Management Review, 28(3), 494–507. https://doi.org/10.5465/amr.2003.10196791
- Kahn, W. A. (1998). Relational systems at work. In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behavior* (pp. 39–76). JAI Press.
- Kahn, W. A., Barton, M. A., & Fellows, S. (2013). Organizational crises and the disturbance of relational systems. *Academy of Management Review*, 38(3), 377–396. https://doi.org/10.5465/amr.2011.0363
- Kalleberg, A. L., & Dunn, M. (2016). Good jobs, bad jobs in the gig economy. *Perspectives on Work*, 20, 10–14. https://michaeldunn.org/wp-content/uploads/2017/05/ALK-MD.-JQ-in-Gig-Economy.pdf
- Kan, M. Y., & Gerhsuny, J. (2010). Gender segregation and bargaining in domestic labour: Evidence from longitudinal timeuse data. In J. Scott, R. Crompton & C. Lyonette (Eds.), Gender inequalities in the 21st century: New barriers and continuing constraints (pp. 153–173). Edward Elgar.
- Kashy, D. A., & Kenny, D. A. (2000). The analysis of data from dyads and groups. In H. T. Reis & C. M. Judd (Eds.), Handbook of research methods in social and personality psychology (pp. 451–477). Cambridge University Press.
- Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). Dyadic data analysis. Guilford press.
- Kenny, D. A., & Ledermann, T. (2010). Detecting, measuring, and testing dyadic patterns in the actor-partner interdependence model. *Journal of Family Psychology*, 24(3), 359–366. https://doi.org/10.1037/a0019651
- Kenny, D. A., Mannetti, L., Pierro, A., Livi, S., & Kashy, D. A. (2002). The statistical analysis of data from small groups. *Journal of Personality and Social Psychology*, 83(1), 126–137. https://doi.org/10.1037/0022-3514.83.1.126
- Kossek, E. E., & Lautsch, B. A. (2012). Work-family boundary management styles in organizations: A cross-level model. Organizational Psychology Review, 2(2), 152–171. https://doi.org/10.1177/2041386611436264
- Kossek, E. E., Lautsch, B. A., & Eaton, S. C. (2006). Telecommuting, control, and boundary management: Correlates of policy use and practice, job control, and work-family effectiveness. *Journal of Vocational Behavior*, 68(2), 347–367. https://doi.org/10. 1016/j.jvb.2005.07.002
- Kossek, E. E., Ruderman, M. N., Braddy, P. W., & Hannum, K. M. (2012). Work-nonwork boundary management profiles: A person-centered approach. *Journal of Vocational Behavior*, 81(1), 112–128. https://doi.org/10.1016/j.jvb.2012.04.003
- Kramer, A., & Kramer, K. Z. (2020). The potential impact of the covid-19 pandemic on occupational status, work from home, and occupational mobility. *Journal of Vocational Behavior*, 119, 103442. https://doi.org/10.1016/j.jvb.2020.103442
- Kreiner, G. E., Hollensbe, E. C., & Sheep, M. L. (2009). Balancing borders and bridges: Negotiating the work-home interface via boundary work tactics. Academy of Management Journal, 52(4), 704–730. https://doi.org/10.5465/amj.2009.43669916
- Ledermann, T., Macho, S., & Kenny, D. A. (2011). Assessing mediation in dyadic data using the actor-partner interdependence model. Structural Equation Modeling: A Multidisciplinary Journal, 18(4), 595–612. https://doi.org/10.1080/10705511.2011. 607099
- Livingston, B. A., & Judge, T. A. (2008). Emotional responses to work-family conflict: An examination of gender role orientation among working men and women. *Journal of Applied Psychology*, *93*(1), 207–216. https://doi.org/10.1037/0021-9010.93.1. 207
- Major, V. S., Klein, K. J., & Ehrhart, M. G. (2002). Work time, work interference with family, and psychological distress. *Journal of Applied Psychology*, 87(3), 427–436. https://doi.org/10.1037/0021-9010.87.3.427
- Mandler, G. (1990). Interruption (discrepancy) theory: Review and extension. In S. Fisher & C. L. Cooper (Eds.), On the move: The psychology of change and transition (pp. 13–32). Wiley.
- $Mann, S., \& Holdsworth, L. (2003). The psychological impact of teleworking: Stress, emotions and health. \textit{New Technology, Work and Employment}, 18(3), 196-211. \\ https://doi.org/10.1111/1468-005X.00121$
- Martinez-Corts, I., Demerouti, E., Bakker, A. B., & Boz, M. (2015). Spillover of interpersonal conflicts from work into nonwork: A daily diary study. *Journal of Occupational Health Psychology*, 20(3), 326–337. https://doi.org/10.1037/a0038661
- Martins, L. L., Eddleston, K. A., & Veiga, J. F. (2002). Moderators of the relationship between work-family conflict and career satisfaction. *Academy of Management Journal*, 45(2), 399–409. https://doi.org/10.2307/3069354

- Matias, M., Ferreira, T., Vieira, J., Cadima, J., Leal, T., & Mena Matos, P. (2017). Workplace family support, parental satisfaction, and work-family conflict: Individual and crossover effects among dual-earner couples. Applied Psychology, 66(4), 628-652. https://doi.org/10.1111/apps.12103
- Mauno, S., & Kinnunen, U. (1999). The effects of job stressors on marital satisfaction in finnish dual-earner couples. Journal of Organizational Behavior, 20(6), 879-895. https://doi.org/10.1002/(sici)1099-1379(199911)20:6<879::aidiob982>3.0.co:2-2
- McElwain, A. K., Korabik, K., & Rosin, H. M. (2005). An examination of gender differences in work-family conflict. Canadian Journal of Behavioural Science, 37(4), 283–298. https://doi.org/10.1037/h0087263
- Michel, J. S., & Hargis, M. B. (2008). Linking mechanisms of work-family conflict and segmentation. Journal of Vocational Behavior, 73(3), 509-522. https://doi.org/10.1016/j.jvb.2008.09.005
- National Bureau of Statistics of China. (2021). China population census yearbook 2020 [Data set]. http://www.stats.gov.cn/tjsj/ pcsj/rkpc/7rp/zk/indexch.htm
- Newman, D. A. (2014). Missing data: Five practical guidelines. Organizational Research Methods, 17(4), 372-411. https://doi. org/10.1177/1094428114548590
- Ng, T. W., & Wang, M. (2019). An actor-partner interdependence model of employees' and coworkers' innovative behavior, psychological detachment, and strain reactions. Personnel Psychology, 72(3), 445-476. https://doi.org/10.1111/peps.12317
- Nippert-Eng, C. (1996). Calendars and keys: The classification of "home" and "work". Sociological Forum, 11, 563-582. https:// doi.org/10.1007/BF02408393
- Ocasio, W., & Wohlgezogen, F. (2010). Attention and control. In S. Sitkin, L. Cardinal & K. M. Bijlsma-Frankema (Eds.), Organizational control: New directions in theory and research (pp. 343-398). Cambridge University Press.
- Ollier-Malaterre, A., Jacobs, J. A., & Rothbard, N. P. (2019). Technology, work, and family: Digital cultural capital and boundary management. Annual Review of Sociology, 45, 425-447. https://doi.org/10.1146/annurev-soc-073018-022433
- Olson, D. H. (2000). Circumplex model of marital and family systems. Journal of Family Therapy, 22(2), 144–167. https://doi.org/ 10.1111/1467-6427.00144
- OWL Labs. (2019). State of remote work 2019. Retrieved May 7, 2022, from https://resources.owllabs.com/state-of-remotework/2019
- Pachler, D., Kuonath, A., Specht, J., Kennecke, S., Agthe, M., & Frey, D. (2018). Workflow interruptions and employee work outcomes: The moderating role of polychronicity. Journal of Occupational Health Psychology, 23, 417-427. https://doi.org/
- Park, Y., & Fritz, C. (2015). Spousal recovery support, recovery experiences, and life satisfaction crossover among dual-earner couples. Journal of Applied Psychology, 100(2), 557-566. https://doi.org/10.1037/a0037894
- Parke, M. R., Weinhardt, J. M., Brodsky, A., Tangirala, S., & DeVoe, S. E. (2018). When daily planning improves employee performance: The importance of planning type, engagement, and interruptions. Journal of Applied Psychology, 103(3), 300-312. https://doi.org/10.1037/apl0000278
- Peeters, M. C., Montgomery, A. J., Bakker, A. B., & Schaufeli, W. B. (2005). Balancing work and home: How job and home demands are related to burnout. International Journal of Stress Management, 12(1), 43-61. https://doi.org/10.1037/1072-5245.12.1.43
- Puranik, H., Koopman, J., & Vough, H. C. (2021). Excuse me, do you have a minute? An exploration of the dark- and bright-side effects of daily work interruptions for employee well-being. Journal of Applied Psychology, 106(12), 1867-1884. https://doi. org/10.1037/apl0000875
- Putzier, K. (2022, July 12). Some companies are going remote—and upgrading to new offices. The Wall Street Journal. https:// www.wsj.com/articles/some-companies-are-going-remoteand-upgrading-to-new-offices-11657627200
- Radcliffe, L. S., & Cassell, C. (2015). Flexible working, work-family conflict, and maternal gatekeeping: The daily experiences of dual-earner couples. Journal of Occupational and Organizational Psychology, 88(4), 835-855. https://doi.org/10.1111/joop.
- Rapp, D. J., Hughey, J. M., & Kreiner, G. E. (2021). Boundary work as a buffer against burnout: Evidence from healthcare workers during the COVID-19 pandemic. Journal of Applied Psychology, 106(8), 1169-1187. https://doi.org/10.1037/ apl0000951
- Reuters. (2021, February 24). South Korea's fertility rate falls to lowest in the world. https://www.reuters.com/article/ussouthkorea-fertility-rate-idUSKBN2AO0UH
- Roeters, A., Van der Lippe, T., & Kluwer, E. S. (2010). Work characteristics and parent-child relationship quality: The mediating role of temporal involvement. Journal of Marriage and Family, 72(5), 1317-1328. https://doi.org/10.1111/j.1741-3737.2010.00767.x
- Rogers, W. H. (1994). Regression standard errors in clustered samples. Stata Technical Bulletin, 3(13), 19-23. https:// econpapers.repec.org/article/tsjstbull/y_3a1994_3av_3a3_3ai_3a13_3asg17.htm
- Rothwell, J., & Saad, L. (2021, March 8). How have U.S. working women fared during the pandemic?. Gallup. https://news.gallup. com/poll/330533/working-women-fared-during-pandemic.aspx

- Scott, B. A., & Barnes, C. M. (2011). A multilevel field investigation of emotional labor, affect, work withdrawal, and gender. Academy of Management Journal, 54(1), 116–136. https://doi.org/10.5465/amj.2011.59215086
- Selig, J. P., & Preacher, K. J. (2008). Monte Carlo method for assessing mediation: An interactive tool for creating confidence intervals for indirect effects[Computer Software]. http://quantpsy.org/medmc/medmc.htm
- Shaffer, M. A., Harrison, D. A., Gilley, K. M., & Luk, D. M. (2001). Struggling for balance amid turbulence on international assignments: Work-family conflict, support and commitment. *Journal of Management*, 27(1), 99–121. https://doi.org/10.1016/S0149-2063(00)00088-X
- Shockley, K. M., & Allen, T. D. (2018). It's not what i expected: The association between dual-earner couples' met expectations for the division of paid and family labor and well-being. *Journal of Vocational Behavior*, 104, 240–260. https://doi.org/10.1016/j.jvb.2017.11.009
- Shockley, K. M., Clark, M. A., Dodd, H., & King, E. B. (2021). Work-family strategies during COVID-19: Examining gender dynamics among dual-earner couples with young children. *Journal of Applied Psychology*, 106(1), 15–28. https://doi.org/10. 1037/apl0000857
- Shockley, K. M., Gabriel, A. S., Robertson, D., Rosen, C. C., Chawla, N., Ganster, M. L., & Ezerins, M. E. (2021). The fatiguing effects of camera use in virtual meetings: A within-person field experiment. *Journal of Applied Psychology*, 106(8), 1137–1155. https://doi.org/10.1037/apl0000948
- Shockley, K. M., Shen, W., DeNunzio, M. M., Arvan, M. L., & Knudsen, E. A. (2017). Disentangling the relationship between gender and work-family conflict: An integration of theoretical perspectives using meta-analytic methods. *Journal of Applied Psychology*, 102(12), 1601–1635. https://doi.org/10.1037/apl0000246
- Sonnentag, S., Reinecke, L., Mata, J., & Vorderer, P. (2018). Feeling interrupted—Being responsive: How online messages relate to affect at work. *Journal of Organizational Behavior*, 39(3), 369–383. https://doi.org/10.1002/job.2239
- Stanko, T. L., & Beckman, C. M. (2015). Watching you watching me: Boundary control and capturing attention in the context of ubiquitous technology use. *Academy of Management Journal*, 58(3), 712–738. https://doi.org/10.5465/amj.2012.0911
- ten Brummelhuis, L. L., & Bakker, A. B. (2012). A resource perspective on the work-home interface: The work-home resources model. *American Psychologist*, 67(7), 545–556. https://doi.org/10.1037/a0027974
- U.S. Bureau of Labor Statistics. (2022, April 20). Employment characteristics of families 2021. News Release-Bureau of Labor Statistics, U.S. Department of Labor. Retrieved August 16, 2022, from https://www.bls.gov/news.release/pdf/famee.pdf
- Vieira, J. M., Matias, M., Lopez, F. G., & Matos, P. M. (2016). Relationships between work-family dynamics and parenting experiences: A dyadic analysis of dual-earner couples. *Work & Stress*, 30(3), 243–261. https://doi.org/10.1080/02678373.2016.
- Wagner, D. T., Barnes, C. M., & Scott, B. A. (2014). Driving it home: How workplace emotional labor harms employee home life. Personnel Psychology, 67(2), 487–516. https://doi.org/10.1111/peps.12044
- Wang, S. W., & Repetti, R. L. (2014). Psychological well-being and job stress predict marital support interactions: A naturalistic observational study of dual-earner couples in their homes. *Journal of Personality and Social Psychology*, 107(5), 864–878. https://doi.org/10.1037/a0037869
- Weissbourd, R., Batanova, M., McIntyre, J., & Torres, E. (2020, June). How the pandemic is strengthening fathers' relationships with their children. Harvard Graduate School of Education. https://static1.squarespace.com/static/5b7c56e255b02c683659fe43/t/5eea124b6fa0cb590b968a90/1592398414030/How+the+Pandemic+is+Strengthening+Fathers+Relationships+with+their+Children+FINAL.pdf
- Westman, M. (2001). Stress and strain crossover. Human Relations, 54(6), 717–751. https://doi.org/10.1177/0018726 701546002
- Westman, M. (2002). Crossover of stress and strain in the family and in the workplace. In P. L. Perrewé & D. C. Ganster, (Eds.), Research in occupational stress and well-being (Vol. 2). Elsevier Science/JAI Press. https://doi.org/10.1016/S1479-3555(02) 02004-8
- Westman, M., & Vinokur, A. D. (1998). Unraveling the relationship of distress levels within couples: Common stressors, empathic reactions, or crossover via social interaction? *Human Relations*, 51(2), 137–156. https://doi.org/10.1177/001872679805100202
- Wilkins, R., Laß, I., Butterworth, P., & Vera-Toscano, E. (2019). The household, income and labour dynamics in Australia survey: Selected findings from waves 1 to 17. Melbourne institute: Applied economic & social research, University of Melbourne. https://melbourneinstitute.unimelb.edu.au/_data/assets/pdf_file/0011/3127664/HILDA-Statistical-Report-2019.pdf
- Yoon, J. (2010). Gender norms, housework, and class: A study of korean time use survey. Asian Journal of Women's Studies, 16(3), 112–138. https://doi.org/10.1080/12259276.2010.11666094
- Yoon, L. (2022, January 19). Share of dual-earner families south korea 2011–2020. Statista. https://www.statista.com/statistics/901495/south-korea-dual-income-households-share/#:~:text=Share%20of%20dual%2Dearner%20families%20South%20Korea%202011%2D2020&text=In%202020%2C%20approximately%2045.4%20percent,percent%20in%20the%20previous%20year

Additional supporting information can be found online in the Supporting Information section at the end of this article.

How to cite this article: Hu, J. (J)., Chiang, T. -J. (J)., Liu, Y., Wang, Z., & Gao, Y. (2023). Double challenges: How working from home affects dual-earner couples' work-family experiences. *Personnel Psychology*, 76, 141–179. https://doi.org/10.1111/peps.12559