

Divided When Crisis Comes: How Perceived Self–Partner Disagreements over COVID-19 Prevention Measures Relate to Employee Work Outcomes at Home

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Accepted: 31 October 2021

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Abstract

As a response to the COVID-19 pandemic, our societies went into a lockdown model and many organizations required or permitted their employees to work from home. As a result, employees need to deal with the COVID-19 pandemic while they work from home, providing an opportunity to examine how COVID-19 prevention experiences influence those who are working from home. Based on the interpersonal self-regulation perspective, we propose that employees who perceive having more disagreements with their partners over COVID-19 prevention measures are more likely to experience a reduction in their identification with the partner which is subsequently associated with their negative work outcomes through emotional exhaustion. Results from a two-wave survey study with a sample of 282 employees who worked from home during the COVID-19 pandemic supported our predictions: perceived self-partner disagreements over COVID-19 prevention measures related to a reduction in identification with the partner, which was subsequently associated with exhausted regulatory resources and undermined work outcomes. Furthermore, these negative effects were particularly salient for individuals who were not married. Theoretical and practical implications for family-to-work interference and working from home in times of crisis are discussed.

Keywords Disagreements over COVID-19 prevention measures \cdot Family-to-work interference \cdot Identification with the partner \cdot Emotional exhaustion \cdot Work outcomes

The far-reaching COVID-19 pandemic reminds us that we inhabit a world with increasing disruptions and turbulence. In the midst of such a stressful crisis, individuals often feel incapable of grasping the world and of dealing with what is happening around them (Skoufias, 2003). They often see family as a major source of support to get through difficult times. However, a crisis can get 'inside the family' if the family unit cannot deal with the crisis effectively (Browne

et al., 2015: 398). Negative family experiences may easily spill over to the work domain especially when work-family boundary becomes blurred (Barley et al., 2017). Therefore, it is valuable to incorporate crisis events into the discussion of the work–family interface and examine how negative family experiences in the context of crisis events produce spillover effects on employee work outcomes when employees work from home in the time of the COVID-19 pandemic (Eby et al., 2016).

Existing literature has generally analyzed family experiences in times of crisis, without extending the analysis to the work domain (MacDermid Wadsworth, 2010; Riggs & Riggs, 2011; Valentine & Hughes, 2010). Within the family domain, researchers have found that crisis has the potential to generate positive outcomes for family members, such as improvements in cohesion, resilience, communication, and intimacy (Eby et al., 2016). However, there is also a possibility that crisis may elicit fundamental differences between partners and even lead to relationship dissolution (Amato & Rogers, 1997; Dew et al., 2012; Neppl et al., 2016). Paying

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Published online: 09 November 2021

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attention to this possibility of "crisis coming into the family" is particularly important because of the greater power of negative experiences over positive ones (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). Particularly, these negative family experiences in response to COVID-19 can spill over to the work domain and are associated with negative work outcomes when the boundaries between family and work become increasingly vague in times of crisis, especially for employees who work from home.

The ongoing COVID-19 crisis provides an opportunity to study the presence and extent of such a negative spillover (Cho, 2020; Kramer & Kramer, 2020). Unlike many other public or social issues, the COVID-19 crisis affects or has the potential to affect everyone, and therefore everyone has been involved in dealing with this crisis. To prevent people from falling ill, many societies have implemented a lockdown, which has included most businesses adopting a work-from-home model for employees (Baert et al., 2020; Cho, 2020; Duffy, 2020; Dubey & Tripathi, 2020). However, there have been considerable disagreements over whether we should sacrifice personal freedom and accept the social constraints imposed on us (Conway III et al., 2021; Van Bavel et al., 2020). Such disagreements, which reflect deep-seated value differences, can be found within a family unit, such as when self and his/her partner disagree over COVID-19 prevention measures, with the self more supporting prevention measures whereas the partner more against them or vice versa.

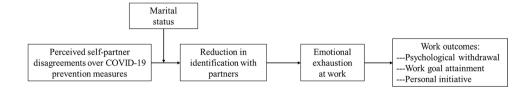
Based on the interpersonal self-regulation perspective (Finkel et al., 2016; Fitzsimons et al., 2015; Fitzsimons & Finkel, 2010; Radcliffe & Cassell, 2014), we propose that perceived self-partner disagreements over COVID-19 prevention measures is associated with reduced individuals' self-regulation resources (e.g., emotional exhaustion) as the fundamental value differences behind the disagreements could relate to a significant reduction in individuals' perceptions of identification or sense of "oneness" with their partners. The reduction in identification with partners can capture the interpersonal nature of the theory because it reflects the changes of relationships between the self and his/her partner (Bernstein et al., 2016), and emotional exhaustion can capture the self-regulation part of the theory because it reflects the degree of self-regulation resources that an individual has (Muraven & Baumeister, 2000). Through the mechanisms of reduction in identification with partners and reduced self-regulation resources, the perceived self-partner disagreements over COVID-19 prevention measures will be further related to negative individuals' work outcomes. As individuals who are married are more dedicated to their relationships with partners and tend to resolve tension with partners through cooperative strategies, we propose that the associations between perceived self-partner disagreements over COVID-19 prevention measures and reduced identification with partners, emotional exhaustion, and negative work outcomes are weaker for individuals who are married. Our research model is presented in Fig. 1.

The present study makes contributions to three important areas. First, as a direct response to the call for illustrating how non-work crisis events influence the work-family interface (Eby et al., 2016), we suggest that perceived selfpartner disagreements over COVID-19 prevention measures play an important role in shaping family-to-work interference during the pandemic. Different from everyday conflicts between partners, perceived disagreements about whether we should accept social constraints reflect deep-seated value differences and thus may associate with profound changes in the relationship and one's self-regulation resources. In particular, drawing upon the interpersonal self-regulation perspective (Finkel et al., 2016; Fitzsimons et al., 2015), we introduce reduction in identification with the partner and self-regulatory resource depletion as mechanisms to investigate how perceived disagreements between partners are associated with the work domain outcomes.

Second, we extend previous literature on work-family interface (e.g., Beigi et al., 2017; Beigi et al., 2018) by taking a process view to elucidate not only whether family-towork interference happens, but also how such interference happens. Previous literature on work-family interface has used concepts like family-to-work conflict (e.g., Byron, 2005; Ford et al., 2007; Michel, Kotrba, Michelson, Clark, & Baltes, 2011) to indicate whether family-to-work interference happens. However, this approach hardly tells how this interference happens. Differently, we aim to reveal the possible mechanisms and processes behind the phenomenon of family-to-work interference and examine the negative relationships between perceived disagreements with partners over COVID-19 prevention measures (in the family domain) and work outcomes (in the work domain). Revealing these detailed processes helps better reduce family-towork interference.

Third, this research advances our understanding of the role of family-to-work interference in implementing

Fig. 1 Theoretical model





work-from-home policies. Working from home has recently become the subject of scholarly discussion, and evidence of its effectiveness has quickly accumulated (Allen et al., 2013; Bloom et al., 2015; Gajendran & Harrison, 2007). However, researchers have warned that the effectiveness of such a policy may be threatened by family-to-work interference (Allen et al., 2013; Golden et al., 2006). As an extension to this strand of the literature, we demonstrate that perceived fundamental disagreements between partners can be one source of family-to-work interferences that jeopardizes the effectiveness of working from home.

Theoretical Development and Hypotheses

The COVID-19 global pandemic represents a serious crisis for human societies. To minimize the spread of the disease, governments are imposing extraordinarily restrictive measures that require people to stay at home and avoid going outside as much as possible (Thelwall & Thelwall, 2020; Tian et al., 2020). Accordingly, many companies have permitted or required their employees to work from home, causing family and work lives of these employees more deeply intertwined. From the interpersonal self-regulation perspective (Fitzsimons et al., 2015), we speculate that if an individual perceives having high disagreements with the partner over COVID-19 prevention measures, he or she may experience the loss of self-regulation resources and further reduction of his or her work outcomes at home.

The interpersonal perspective on self-regulation posits that the relationships in which individuals are embedded play an important role in shaping their self-regulation processes (Finkel & Fitzsimons, 2011; Fitzsimons & Finkel, 2010). There is consistent evidence of relational factors influencing one's self-regulatory processes, such that negative interpersonal interactions tend to deplete self-regulatory resources and thus worsen personal goal achievements (Finkel et al., 2006). Therefore, this perspective is particularly helpful in understanding how individuals' perception of disagreements with their partner over COVID-19 prevention measures is related to their self-regulation in pursuing work goals when they work from home during the lockdown period.

Perceived Self-Partner Disagreements and Self-Regulation Impairment: The Mechanism of Reduction in Identification with the Partner

Many restrictive measures for preventing COVID-19, such as mandating the wearing of masks, avoiding of social gatherings, and tracing individuals' movements, have become highly contentious within societies, as such measures ask people to sacrifice personal freedom (Thelwall & Thelwall, 2020). While some people fully endorse and strictly obey such guidelines, others strongly resist because they believe that such regulations violate their human right of liberty and freedom (Van Bavel et al., 2020). When such disagreements emerge within a family between partners, fundamental differences in their attitudes to the value of human life and the inalienability of human rights might emerge, prompting them to reevaluate their relationship.

As two individuals in a romantic relationship get to know each other, their self-concepts usually become intertwined, and the psychological boundaries between them are blurred (Finkel et al., 2017). This process represents the development of identification—a perception of being oneness with another and a tendency to view the self as 'including [the] resources, perspectives, and characteristics of the other' (Aron et al., 1992: 598). However, the interconnection and oneness can be undone, manifesting in a reduction in identification, if significant differences are discovered between partners. As we highlighted, perceived disagreements over COVID-19 prevention measures between partners reflect a perception of mismatch in prioritizing personal freedom versus social constraint (Van Bavel et al., 2020). Discovery of such a mismatch alerts individuals to sharp differences from their partners in relation to the prioritizing and pursuing of human rights. As a consequence, identification with their partners is likely to decrease and they will feel a reduction in the sense of belonging and oneness within the relationship (Bernstein et al., 2016).

A fundamental aspect of close relationships is partners supporting and relying on each other in pursuing their goals (Finkel et al., 2016; Fitzsimons et al., 2015). However, they would hesitate to do so when losing feelings of togetherness with their partners (Feeney, 2007). Meanwhile, they are also more likely to experience negative interactions with their partners: for example, they may be easily provoked by certain words or behaviors of their partners that would otherwise not be perceived as provocative in periods of greater togetherness. As such negative interactions with their partners accumulate, individuals will experience unhappiness, animosity, frustration, and annoyance (Halevy et al., 2012), exhausting their resources. Integrating these arguments, we propose that:

Hypothesis 1: Perceived self-partner disagreements over COVID-19 prevention measures are positively related to a reduction in identification with the partner.

Hypothesis 2: Perceived self-partner disagreements over COVID-19 prevention measures are positively related to individuals' emotional exhaustion through reduction in identification with the partner.



Family-to-Work Interference: Negative Relations between Perceived Self-Partner Disagreements and Work Outcomes

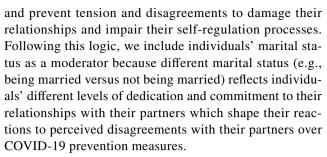
As emotional exhaustion links perceived self-partner disagreements over COVID-19 prevention measures and work domain experiences for those who are working from home by negative association with one's identification with the partner, it could further create a distraction and relate to negative outcomes, such as greater psychological withdrawal, less work goal attainment, and less demonstration of personal initiative. Psychological withdrawal from work includes the behaviors associated with tardiness or putting little effort into work tasks (Lehman & Simpson, 1992). Work goal attainment refers to the extent to which employees can successfully achieve their work goals (Greguras & Diefendorff, 2010). Personal initiative at work includes self-starting attempts to overcome barriers to achieve work goals and improve performance (Frese & Fay, 2001). When employees work from home with less external supervision, they must regulate themselves more to perform at their jobs. When their resources are depleted, however, employees cannot mobilize enough resources into their work tasks. Thus, they are more likely to withdraw from their work (Chi & Liang, 2013; Cole et al., 2010; Cropanzano et al., 2003), be less able to achieve work goals (Milyavskaya & Inzlicht, 2017), and take less personal initiative in their work (Zacher et al., 2019).

Taken together, the above arguments suggest that perceived self-partner disagreements over COVID-19 prevention measures are likely to reduce identification with the partner by creating a sense of disunity between partners. Negative interactions associated with these disagreements will further relate to an individual's reduced self-regulation resources and impaired work outcomes. Therefore, we hypothesize that:

Hypothesis 3: Perceived self-partner disagreements over COVID-19 prevention measures are positively related to (a) psychological withdrawal, and negatively related to (b) work goal attainment and (c) personal initiative, via a sequential path through reduction in identification with the partner and emotional exhaustion.

Marital Status as a Moderator

According to the interpersonal self-regulation perspective (Fitzsimons & Finkel, 2010; Fitzsimons et al., 2015), when partners are dedicated to their relationships, they tend to resolve their tension through cooperative strategies



For married individuals, performing daily activities with their spouses (e.g., addressing each other as wife or husband) makes their identity as a couple more salient (Stanley et al., 2002). Indeed, research has suggested that married people have a strong identity as a couple with their partners (Adams & Jones, 1997) as they are dedicated and committed to their relationships with their partners, and their behaviors tend to be relationship oriented. Accordingly, married individuals will follow the social prescription of couple identity and show understanding and cooperation toward their partners (Sluss & Ashforth, 2007). Thus, facing situations of disagreements over COVID-19 prevention measures, married couples are likely to try to compromise, share, and engage in creative cooperation (Duvall & Hill, 1945). As such, the relationship between perceived disagreements and a reduction in identification is weaker for marrieds.

On the other hand, for couples who are not married, their couple identity is weaker than their married counterparts, even after controlling for length of relationship (Stanley et al., 2002). Quite the contrary, partners who are not married have higher levels of relationship independence, pursue more independent social networks, and preserve more individual identity than marrieds (Elizabeth, 2000). With a less strong sense of an identity as a couple and a stronger individual identity, these partners are less dedicated and committed to their relationships, and their behaviors are relatively less relationship oriented. Thus, facing situations of disagreements over COVID-19 prevention measures, unmarried partners are more likely to express their divergent opinions and behaviors (Jung & Hecht, 2004) than to resort to cooperative strategies such as compromise to solve their disagreements and tensions. As such, the association between perceived disagreements and a reduction in identification is stronger for partners who are not married. Taken together, we hypothesize that:

Hypothesis 4: Marital status moderates the relationship between perceived self-partner disagreements over COVID-19 prevention measures and reduction in identification with the partner, such that the relationship is stronger for unmarried couples.

The integration of Hypotheses 3 and 4 suggests that the marital status plays a moderating role in the indirect



relationships we have specified. Thus, we put forward the following hypothesis:

Hypothesis 5: Marital status moderates the indirect relationship between perceived self-partner disagreements over COVID-19 prevention measures and (a) psychological withdrawal, (b) work goal attainment, and (c) personal initiative via a sequential path through reduction in identification with the partner and emotional exhaustion, such that the indirect relationships are stronger for unmarried couples.

Methods

Sample and Procedure

We collected data through the online platform Prolific from participants located in the United Kingdom and United States where the outbreak and spread of COVID-19 pandemic shared a lot of similarities. The ongoing COVID-19 pandemic spread to the UK and US in January 2020 and, as the severity of the epidemic was recognized, the US government declared a national emergency on 13 March 2020 and the UK government imposed lockdown measures on 23 March 2020. Afterwards, many companies required their employees to work from home. To minimize the impact of common method bias on our results, we followed the recommendations of Podsakoff et al. (2003) and collected data with time separations between study variables. We started data collection in late April (Time 1) and asked participants to report perceived self-partner disagreements over COVID-19 prevention measures, identification with the partner before the outbreak of COVID-19, their marital status, and other demographic characteristics. One week later and in early May (Time 2), we asked participants to report identification with the partner after the outbreak of COVID-19, emotional exhaustion, and work outcomes in terms of psychological withdrawal, work goal attainment, and personal initiative.

A prior power analysis based on previous literature about the family interference with work (e.g., Amstad, Meier, Fasel, Elfering, & Semmer, 2011) suggests that we need a sample size of 242 to arrive at a power of 0.95. That being said, we increased our sample size due to possible sample loss during data collection. Particularly, we recruited 400 participants who were (a) in a romantic relationship, (b) working full-time, and (c) working from home due to COVID-19. As 79 participants did not pass our checks on these criteria, we deleted them from our analysis. Of the left participants, 321 completed the Time 1 survey (100% response rate), and 282 completed the Time 2 survey (88% response rate). The final sample of 282 participants was over an ideal sample size of 242

and thus allowed us to achieve a good power of analysis. The final sample of 282 participants was on average 34.13 years old (SD = 8.39), with 57.8% female, and 49.6% married. 77.7% had a Bachelor's degree or above, and the average relationship duration with their partners was 8.84 years (SD = 7.27).

Measures

Items were scored on Likert scales anchored at 1 (*strongly disagree*) and 7 (*strongly agree*), unless otherwise specified.

Perceived self-partner disagreements over COVID-19 prevention measures Based on the international guidelines for preventing COVID-19 (World Health Organization, 2020), we selected nine restrictions that can capture an individual's attitudes about whether people should accept social constraints and sacrifice personal freedom. A sample item is, "To control the spread of COVID-19, people should stay home and avoid going outside as much as possible". Participants were asked to indicate the degree of consensus with their partners on these measures with an anchoring from I = we have low consensus to I = we have high consensus. To capture the disagreements between partners, we reverse coded these items (I = 0.79). Please check Appendix A for the full details on the scale.

Reduction in identification with the partner We used a pictorial measure (Aron et al., 1992) to assess the participants' oneness with their partners. Eight pictures were used to represent different degrees of overlap between the self and partner (see Appendix B). Participants were asked to choose the picture that best captured their feelings of togetherness with their partner at Time 1 (before the outbreak of COVID-19) and at Time 2 (after the outbreak of COVID-19). The difference between the two scores was calculated to represent the level of reduction in identification with the partner (i.e., the more positive the value, the more the identification had decreased over time). The same form of measurements in a questionnaire may increase the possibility of common method variance in measurement (Podsakoff et al., 2003), and our pictorial measure may reduce this possibility. In addition, this pictorial approach has previously demonstrated sound psychometric properties (Shamir & Kark, 2004; Schubert & Otten, 2002; Swann et al., 2012).

Emotional exhaustion We used a 5-item scale (Pugh et al., 2011) to measure emotional exhaustion. The stem of the items is, "Since the outbreak of COVID-19, how often have you experienced the following feelings at your job?" and a sample item is "Being tired" (I = never, 7 = always, $\alpha = 0.91$).



Work outcomes Participants were asked to indicate to what extent they agreed with the descriptions of their work behaviors since the outbreak of COVID-19. We used eight items from Lehman and Simpson (1992) to measure participants' levels of psychological withdrawal. A sample item is, "I put less effort into my job than I should have" (1 = never, 7 = very often; $\alpha = 0.78$). We used four items from Greguras and Diefendorff (2010) to measure the participants' levels of work goal attainment. A sample item is, "I achieved what I wanted to achieve with my work goals" ($\alpha = 0.94$). We used a 7-item scale to measure the participants' levels of self-initiative in work behavior (Frese et al., 1997). A sample item is, "I did more than I was asked to do" ($\alpha = 0.90$).

Marital status We asked participants whether they were married with their partner with "I am not married with my partner" coded as 0 and "I am married with my partner" coded as 1.

Control variables First, we controlled for the demographic characteristics of age and gender, considering their possible influences on family-to-work interference (Cunningham & De La Rosa, 2008; Pleck, 1977; Westman, 2002). Second, partners who were married tended to have a longer relationship duration, but marital status is more than just longer relationship (Wang, Zhao, & Lei, 2019). We therefore controlled for relationship duration with the partner to preclude its possible confounding influence on the effects of perceived disagreements. Finally, we controlled for identification with the partner before the COVID-19 outbreak to eliminate the influence of the starting value of identification with the partner on work outcomes.

Results

Confirmative Factor Analysis (CFA)

We conducted a series of CFAs to examine the distinctiveness of five study variables: perceived self–partner disagreements over COVID-19 prevention measures, emotional exhaustion, psychological withdrawal, work goal attainment, and personal initiative. To achieve an optimal ratio of values to sample size, we randomly created three parcels for perceived self-partner disagreements over COVID-19 prevention measures, psychological withdrawal, and personal initiative, each of which had seven or more items (Little et al., 2002). As shown in Table 1, the data fit the baseline five-factor model (Model 1) well (χ^2 (125) = 242.91, p < .001, root-mean-square error of approximation [RMSEA] = .06, comparative fit index [CFI] = .97, Tucker-Lewis index [TLI] = .96, standardized root-mean-square residual [SRMR] = .05), and better than the alternative models.

Following the procedures recommended by Podsakoff et al. (2003), we further added one uncorrelated latent method factor to Model 1 to examine the threat of common method variance to our study. The chi-square difference test showed that adding the uncorrelated method factor (Model 6) did not significantly improve the base-line model ($\Delta \chi^2 = .74$, df = 2, p = .69), suggesting that common method variance was not a serious issue in the current study.

Descriptive Statistics

Table 2 displays the means, standard deviations, reliabilities of the variables, and the correlations among them.

Table 1 CFA results

Models	χ^2 (df)	$\Delta \chi^2 (\Delta df)$	RMSEA	CFI	TLI	SRMR
1. Five-factor baseline model ^a :	242.91** (125)		.06	.97	.96	.05
2. Four-factor model: emotional exhaustion and psychological withdrawal loaded on the same factor	482.20** (129)	240.01** (4)	.10	.90	.88	.11
3. Four-factor model: emotional exhaustion and work goal attainment loaded on the same factor	1397.80** (129)	1154.89** (4)	.19	.64	.57	.19
4. Four-factor model: emotional exhaustion and personal initiative loaded on the same factor	822.99** (129)	580.08** (4)	.14	.80	.77	.16
5. One-factor model: all the items were combined into one factor	2088.45** (135)	1845.54** (10)	.23	.44	.37	.18
6. Six-factor model: one uncorrelated latent method factor was added to the baseline five-factor model	242.17** (123)	.74 (2)	.06	.97	.96	.05

N = 282. ** p < .01 (two-tailed tests). ** Five factors include: self-partner disagreements over COVID-19 prevention measures, emotional exhaustion, psychological withdrawal, work goal attainment, and personal initiative. RMSEA = root-mean-square error of approximation; CFI = comparative fit index, TLI = Tucker-Lewis index, SRMR = standardized root-mean-square residual.



Table 2 Demographics and correlations

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10
Perceived self-partner disagreements over COVID-19 prevention measures	1.90	.74	.79									
2. Marital status	.50	.50	05									
3. Reduction in identification with the partner	20	1.45	.10+	06								
4. Emotional exhaustion	3.70	1.51	07	09	.12+	.91						
5. Psychological withdrawal	3.56	1.09	.17**	06	02	.28**	.78					
6. Work goal attainment	4.72	1.23	18**	00	.02	24**	42**	.94				
7. Personal initiative	4.79	1.07	21**	.06	00	18**	38**	.55**	.90			
8. Age	34.13	8.39	02	.40**	06	23**	12*	.08	.09			
9. Gender	.42	.50	.07	.12+	.07	23**	01	.02	.07	.12*		
10. Relationship duration with the partner	8.84	7.27	04	.54**	06	12*	02	.04	.07	.63**	.03	
11. Identification before COVID-19	4.98	1.81	20**	.17**	.32**	01	10 ⁺	.16**	.12*	09	.12+	.05

N = 282. Gender was coded with 0 = Female and 1 = Male. Marital status was coded with 0 = Not married and 1 = Married. Reliabilities were reported in diagonal (in italic and boldface).

Hypotheses Testing

Two structural models were performed. The first model, without the moderator, was performed to test Hypotheses 1, 2, and 3. This was a fully saturated model, yielding perfect model fit. The second model added marital status as a moderator and the interaction between perceived self–partner disagreements over COVID-19 prevention measures and

marital status. Grand-mean centering was performed before the interaction term was computed. This model showed good model fit: $\chi^2(8) = 5.93$, p = .66, RMSEA = .00, CFI = 1.00, TLI = 1.04, and SRMR = .01. We computed 95% biascorrected confidence intervals (CI) using the estimates from 1,000 bootstrapped samples (Shrout & Bolger, 2002). The unstandardized and the indirect effect results are reported in Table 3 and 4 respectively.

Table 3 Unstandardized path analysis results

Variables	Reduction identification partner	in on with the	Emotional exhaustion Psychologica withdrawal		Work goal attainment		
Controls							
Age	.01 (.01)	.01 (.01)	04** (.01)	02+ (.01)	.01 (.01)	.01 (.01)	
Gender	.03 (.17)	.06 (.16)	60** (.17)	.15 (.13)	13 (.15)	.06 (.13)	
Relationship duration with the partner	02 (.01)	01 (.02)	.01 (.02)	.02 (.01)	01 (.01)	.00 (.01)	
Identification before COVID-19	.29** (.05)	.30** (.05)	07 (.05)	04 (.04)	.09* (.04)	.04 (.04)	
Main effects							
Perceived self-partner disagreements over COVID- 19 prevention measures	.33** (.11)	.32** (.11)	19 (.12)	.26** (.09)	29** (.10)	30**(.09)	
Marital status		31 (.19)					
Moderating effect							
Perceived self-partner disagreements × Marital status		49* (.22)					
Mediating effects							
Reduction in identification with the partner			.16* (.06)	04 (.05)	.03 (.05)	.01 (.05)	
Emotional exhaustion				.21** (.04)	21**(.05)	13** (.04)	
Residual variance	1.80	1.75	2.00	1.03	1.33	1.03	
\mathbb{R}^2	.14**	.16**	.12**	.13**	.12**	.09**	

N = 282. The standard errors were included in parentheses. R^2 was computed from the formula of (1-residual variance)/total variance.



 $^{^{+}}p < .10, ^{*}p < .05, ^{**}p < .01$ (two-tailed tests)

 $^{^{+}}p < .10, ^{*}p < .05, ^{**}p < .01$ (two-tailed tests).

Table 4 Indirect relationships and conditional indirect relationships

Relationships	Indirect effects	95% CI
Perceived self-partner disagreements over COVID-19 prevention measures → Reduction in identification → Emotional exhaustion (<i>H</i> 2)	.053	[.007, .145]
Perceived self-partner disagreements over COVID-19 prevention measures→Reduction in identification→Emotional exhaustion→Psychological withdrawal	Indirect effects	95% CI
Indirect relationship (H3a)	.011	[.002, .035]
Conditional Indirect Relationships (H5a)		
Not married	.017	[.003, .047]
Married	.002	[008, .022]
Difference	015	[048,001]
Perceived self-partner disagreements over COVID-19 prevention measures→Reduction in identification→Emotional exhaustion→Work goal attainment	Indirect effects	95% CI
Indirect relationship (H3b)	011	[036,002]
Conditional Indirect Relationships (H5b)		
Not married	017	[049,004]
Married	002	[024, .007]
Difference	.015	[.001, .046]
Perceived self-partner disagreements over COVID-19 prevention measures→Reduction in identification→Emotional exhaustion→Personal initiative	Indirect effects	95% CI
Indirect relationship (H3c)	007	[026,001]
Conditional Indirect Relationships (H5c)		
Not married	011	[032,002]
Married	001	[016, .004]
Difference	.009	[.000, .030]

95% confidence intervals (CI) were computed from analysis with bootstrap = 1000.

Table 3 shows that the relationship between perceived self-partner disagreements over COVID-19 prevention measures and reduction in identification with the partner was significantly positive (B = .33, s.e. = .11, p = .003). Thus, Hypothesis 1 was supported. Table 4 shows that the indirect effects of perceived self-partner disagreements over COVID-19 prevention measures on emotional exhaustion through reduction in identification with the partner was significantly positive, with estimate = .053 and 95% CI [.007, .145]. Thus, Hypothesis 2 was supported. Table 4 also shows that the sequential indirect relationships between perceived self-partner disagreements over COVID-19 prevention measures and (a) psychological withdrawal, (b) work goal attainment, and (c) personal initiative through reduction in identification with the partner and emotional exhaustion were all significant, with estimate = .011 and 95% CI [.002, .035] for psychological withdrawal; estimate = -.011 and 95% CI [-.036, -.002] for work goal attainment; and estimate = -.007, 95% CI [-.026, -.001] for personal initiative. Therefore, Hypothesis 3 was supported.

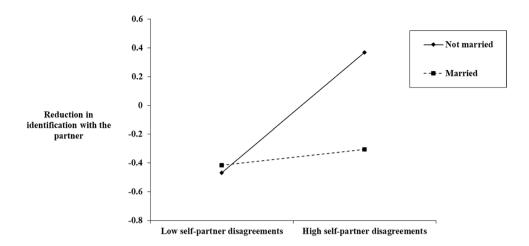
Table 3 shows that the effect of interaction between perceived self-partner disagreements over COVID-19

prevention measures and marital status on reduction in identification with the partner was significant (B = -.49, s.e. = .22, p = .024). As shown in Fig. 2, the relationship between perceived self-partner disagreements over COVID-19 prevention measures and reduction in identification with the partner was positive and significant when participants were not married with their partner (B = .56, s.e. = .15, p < .001) but not significant when participants were married with their partner (B = .07, s.e. = .16, p = .64). Thus, Hypothesis 4 was supported.

Table 4 also shows that the indirect effects of perceived self-partner disagreements over COVID-19 prevention measures on psychological withdrawal through reduction in identification with the partner and emotional exhaustion was significant when participants were not married with their partner, with estimate = .017 and 95% CI [.003, .047], but not significant when participants were married with their partner, with estimate = .002 and 95% CI [-.008, .022]. The difference between the two effects was significant, with estimate = -.015 and 95% CI [-.048, -.001]. The indirect effect of perceived self-partner disagreements over COVID-19 prevention measures on work goal attainment through



Fig. 2 Interactive effect of perceived self-partner disagreements over COVID-19 prevention measures and marital status on reduction in identification with the partner



reduction in identification with the partner and emotional exhaustion was significant when participants were not married with their partner, with estimate = -.017and 95% CI [-.049, -.004], but not significant when they were married with their partner, with estimate = -.002and 95% CI [-.024, .007]. The difference between the two effects was significant, with estimate = .015 and 95% CI [.001, .046]. The indirect effect of perceived self-partner disagreement over COVID-19 prevention measures on personal initiative through reduction in identification with the partner and emotional exhaustion was significant when participants were not married with their partner, with estimate = -.011 and 95% CI [-.032. -.002], but not significant when they were married with their partner, with estimate = -.001, 95% CI [-.016, .004]. The difference between the two effects was significant, with estimate = .009 and 95% CI [.000, .030]. Therefore, Hypothesis 5 was supported.

Discussion

Everyone's life and work have changed a lot because of the COVID-19 pandemic. Many start to work from home, feeling the increasingly blurred boundary between life and work. Meanwhile, our society has taken many prevention measures intending to reduce the spread of the epidemic. Because these prevention measures restrict people's freedom, people do not agree to and implement them unanimously. Drawing upon the interpersonal self-regulation perspective, we predicted that when partners disagreed over the COVID-19 prevention measures, they may see such disagreement as an indicator of their fundamental value differences, experienced identification reduction

with the partner, experienced emotional exhaustion, and displayed negative work behaviors when they worked from home. We also theorized that these negative effects of perceived disagreements with partners over the COVID-19 prevention measures would be weaker for married partners. A two-wave study provides support for our theoretical model.

Theoretical Implications

Our research makes important theoretical contributions to the literature. First, we contribute to the crisis literature by explaining how family experiences in times of COVID-19 crisis influenced people's work outcomes from an interpersonal self-regulation perspective. Existing research has rarely incorporated non-work crisis events into the discussion of the work-family interface (Eby et al., 2016). Our results suggest that a family's experience in times of crisis not only affected relationships among family members (manifested as a reduction in identification with the partner) but also further affected individuals' work performance. Different responses toward COVID-19 prevention measures reflected differences in values and political ideologies between partners (Conway III et al., 2021) and thus had the effect of stimulating the appearance of deep-seated differences (Van Bavel et al., 2020) that worsened the interpersonal relationships within the family. The deterioration of the self-partner relationship further divided the relational unit between partners, exhausted individuals' regulatory resources, and undermined their work outcomes. Our results partly explain why relationship conflict and dissolution within family often increase in times of crisis (Dew et al., 2012; Gimbel & Booth, 1994) despite relational support from family members being



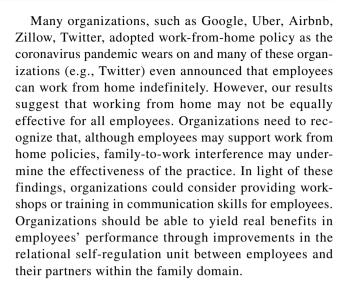
needed at these times to help build resilience in the family and work domains (Caruana, 2010; Eby et al., 2016; Van Daalen et al., 2006; Walsh, 2016). It is important to consider whether family members can deal with the crisis unanimously.

Second, this study extends the literature on working from home by highlighting the detrimental effects of the crisis spilling over from the family domain to the work domain. Although previous literature has mainly depicted a positive picture of work-from-home practices (Bloom et al., 2015; Gajendran & Harrison, 2007), some research suggests that working from home may introduce or heighten family-to-work interference (Golden et al., 2006). Our study seized the opportunity provided by the prevalence of working from home during the COVID-19 pandemic to explore explanations for this increased interference. Specifically, we identified perceived self–partner disagreement over COVID-19 prevention measures as an important factor in negatively shaping work outcomes of employees who worked from home.

Third, our study contributes to the literature on family-to-work interference by taking a process view on how the interference occurs. Most work–family research has asked participants to directly report the extent of interference (e.g., "Tension and anxiety from my family life often weakens my ability to do my job"; Wang et al., 2010; Liu et al., 2015). Such an approach is useful for identifying whether an individual perceives family-to-work interference but does not enlighten us on how this interference occurs. Built on the interpersonal self-regulation perspective, our study unpacked the underlying processes by indicating that perceived self-partner disagreements over COVID-19 prevention measures triggered a process of family-work interference by sequentially reducing the identification between partners and exhausting individuals.

Practical Implications

The results of our study imply that it is important for people and their partners to develop shared beliefs during time of stress and uncertainty (Prime et al., 2020). Due to the COVID-19 crisis, people are spending more time with their families while working from home. Nevertheless, crisis situations may become a salient context for deep-seated differences between partners to emerge. Individuals—especially those who are not married with their partners—should be alert to the differences in their crisis prevention attitudes to that of their partners, because managing family disagreement is critical not only for the relationship with their partners, but also for their own work outcomes.



Limitations and Future Directions

Our research has several limitations that may inspire interesting future research. First, although causality cannot be conclusively established from our survey data, we took efforts to make our model estimations reliable (Rohrer, 2018). We tested our measurement model and found our data fit the baseline five-factor model well, which indicates that measurement error only has limited effect on our model. We also believe the data were appropriately modeled, as our theoretical framework interpersonal self-regulation perspective suggests, relational factors deplete self-regulatory resources and thus worsen personal goal achievements. Moreover, we considered potential confounders and controlled for age, gender, relationship duration, and identification with the partner before the COVID-19 outbreak to eliminate their possible influences on our modeled process of familyto-work interference.

Second, all studied variables were measured from the same source due to data collection constrains during the epidemic. To eliminate the threat of common-method factor to our results, we attempted to minimize this bias by following the procedures recommended by Podsakoff et al. (2003), such as creating time separations between study variables, using different measurement anchors, and directly assessing the threat through CFA procedures. Furthermore, the results of the interactions cannot be explained by the common method factor because correlated errors cannot create spurious interactions (Schmitt, 1994). Nevertheless, future research may consider using different sources of information, including partner-rated self-values and supervisor- or colleague-rated work outcomes.



Third, the generalizability of the current findings should be further tested. COVID-19 prevention measures are related to the social norms and cultural values of the countries in which they are implemented. The U.K. and the U.S. are characterized as having weak norms and loose cultures (Gelfand et al., 2011). Therefore, we were more likely to observe perceived disagreements between partners over prioritizing constraints or freedom in our sample. Future research should examine whether our results can be generalized to people in countries with strong norms and a tight culture. For example, in a tight culture, even when individuals are against the imposition of COVID-19 prevention measures, strong social norms may pressure them to obey. In this situation, perceived disagreements between partners may be less salient. Such cultural differences could also potentially relate to political differences which have implications about individuals' attitudes toward prevention measures. Loose cultures allow individuals to express their different opinions and thus it should be easier to find disagreements between partners over prioritizing constraints or freedom in loose cultures; tight cultures emphasizes individuals in the culture sharing the same belief, thus it should be easier to observe consensus between partners over prioritizing constraints or freedom in tight cultures. Therefore, researchers could include such cultural differences in the model and examine their role in shaping family relationships and individuals' work outcomes.

Conclusions

The COVID-19 allows us to examine how family prevention experiences influence employees who work from home, a research topic that potentially sheds lights on whether the practice of work from home works equally well for all the employees. Our research suggests that organizations should be alert that for employees with partners, especially when they are not married with their partners, their work performance at home is likely to be negatively associated with their deep disagreements with the partner (e.g., how to deal with COVID-19). With this knowledge, organizations and employees can take active strategies to reduce this negative impact and facilitate the effectiveness of work from home practice.

Appendix A

Measures of perceived self-partner disagreements over COVID-19 prevention measures

To what extent do you think that you and your partner share the same opinions toward each of the following statements about COVID-19 prevention measures with 1=we have low consensus, 7=we have high consensus:

"To control the spread of COVID-19 ..."

- 1. people should stay home and avoid going outside as much as possible.
- companies/organizations should ask employees to work from home.
- 3. people should practice social distancing (e.g., keep physical distance) between each other.
- 4. everyone should wear a mask when going out.
- 5. people should follow orders of mandated quarantines (e.g., anyone who travelled from a severely affected COVID-19 area must stay home or stay in government assigned hotels for 14 days before going out).
- 6. it is necessary to cancel gathering activities.
- 7. everyone should yield some rights to allow government to track their locations and movement (e.g., by installing certain phone apps to allow so).
- 8. everyone should give up some freedom and submit to authority and central control.
- 9. everyone should give up some personal space and convenience to be cooperative with government orders.

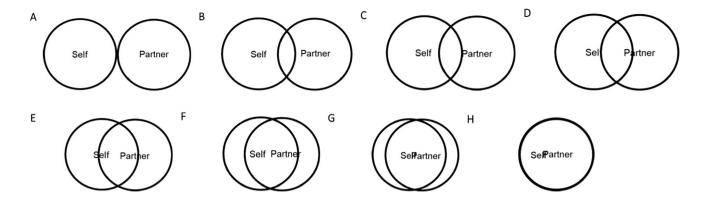
Notes. The consensus was reverse coded for perceived self-partner disagreements over COVID-19 prevention measures

Appendix B

Measures of identification with the partner (identification reduction was computed from Before COVID-19 identification – After COVID-19 identification)

Below are eight pictures that represent different feelings of connection that you might have with your partner. Before the outbreak of COVID-19 (After the outbreak of COVID-19), which of the following picture represents your feelings of connection that you might have with your partner?





Funding This research was supported by the scholarship from the National Natural Science Foundation of China (71902141, 71902143, and 72002157), Shanghai Chenguang Program (20CG28), and Shanghai Pujiang Program (2019PJC101).

Data availability The datasets generated during and/or analysed during the current study are available via Open Science Framework website, https://osf.io/hu8kz/?view_only=bb62a11639d54d56ba66ad32fe2cec dd.

Declarations

Conflict of interest The authors declare that there is no conflict of interest

Ethics approval Approval was obtained from the ethics committee of Tongji University. The procedures used in this study adhere to the tenets of the Declaration of Helsinki.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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