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# The effect of work–family conflict on emotional exhaustion and job performance among service workers: the cross-level moderating effects of organizational reward and caring

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## ABSTRACT



This study reports on the relationships among work–family conflict (WFC), family–work conflict (FWC), emotional exhaustion and task performance of service workers. We also consider the cross-level moderating effects of organizational reward and caring on these relationships. To avoid common method variance, this study collects data from multiple levels, sources and time points. Data were collected from 238 service worker–manager pairs from 33 hotels at two different time points. The results of hierarchical linear modeling show that WFC positively relates to emotional exhaustion. In addition, organization’s caring reduces the influences of WFC on emotional exhaustion. Moreover, organization’s caring attenuates the negative effects of FWC on job performance. These findings have several implications for both future research and practitioners.

## KEYWORDS

Work–family conflict (WFC); family–work conflict (FWC); reward; caring; emotional exhaustion

## Introduction

Dual-career couples frequently experience conflicts in the work–family interface which have consequences for their work performance (Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005; Kossek, Pichler, Bodner, & Hammer, 2011). Work–family conflict is a particular concern in the hospitality industry due to long, irregular and unsocial working hours (Magnini, 2009; McNamara, Bohle, & Quinlan, 2011) that are characterized by rotating shifts and heavy workloads (Karatepe, 2010; Zhao & Ghiselli, 2016). It is widely recognized that frontline employees in the

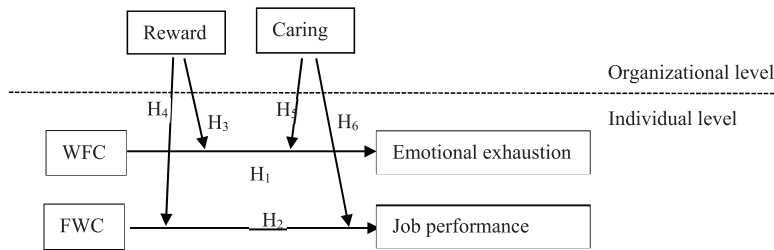
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hospitality industry experience difficulties in balancing the demands of work and family roles (Karatepe & Baddar, 2006; Karatepe & Sokmen, 2006; Namasivayam & Zhao, 2007) and this is a precursors of family–work conflict and work–family conflict (Choi & Kim, 2012; McNamara et al., 2011; Yavas, Babakus, & Karatepe, 2008). Work–family conflict (WFC) and family–work conflict (FWC) lead to significant negative outcomes for service workers that include poor health and well-being (Allen, Herst, Bruck, & Sutton, 2000; Eby et al., 2005) and emotional exhaustion (Burke & Greenglass, 2001; Posig & Kickul, 2004; Van Daalen, Willemsen, Sanders, & Van Veldhoven, 2009). Both WFC and FWC explain reductions in job performance (e.g. Gilboa, Shirom, Fried, & Cooper, 2008; Hoobler, Wayne, & Lemmon, 2009), job satisfaction, organizational commitment, and corresponding increases in anxiety and work stress (Cavazos-Garza, 2011). It is of mutual interest to employees and organizations to reduce the consequences of WFC and FWC and so improve work performance (Boselie, Dietz, & Boon, 2005).

Amstad, Meier, Fasel, Elfering, and Semmer's (2011) meta-analysis concludes that there is a lack of consensus about the mechanisms underlying the relationship between WFC/FWC and outcome variables for employees and organizations. For example, the relationships between WFC/FWC and job performance and emotional exhaustion are inconsistent (Allen et al., 2000; Amstad, Meier, Fasel, Elfering, & Semmer, 2011; Gilboa et al., 2008). This inconsistency suggests the possibility of undiscovered moderators that could explain why these results are inconclusive (Allen et al., 2000; Amstad et al., 2011; Riolli & Savicki, 2003). This study investigates possible moderators in the relationships between WFC/FWC and outcome variables.

According to ego depletion theory (Baumeister, Bratslavsky, Muraven, & Tice, 1998), self-resource depletion not only affects self-perception (Baumeister, Gailliot, DeWall, & Oaten, 2006) but also leads to failures in self-control (Baumeister et al., 1998). When conflicts occur continuously between work and family this consumes individuals' limited resources and means the effects of resource depletion are readily apparent (Lapierre & Allen, 2006). Individuals' resource depletion not only affects their behavior and mental and physical health but links to organizational performance. Grandey and Cropanzano (1999), consequently, suggest that organizations provide various forms of resource to alleviate the effects of WFC/FWC among its employees. Organizational and family resources are helpful for easing the effects of WFC/FWC (Butts, Casper, & Yang, 2013; Kossek et al., 2011).

Studies of workplace stress emphasize the need for psychologists and managers to deepen their understanding of the social support linkages



**Figure 1.** The conceptual framework of the present study.

within WFC/FWC; such as, perceived organizational support (Kossek et al., 2011), supervisor support (Kossek et al., 2011; Lapierre & Allen, 2006) and work–family policies (Butts et al., 2013). The majority of prior research, however, focuses on individual moderators of the relationship between work–family conflict and job performance. For example, Witt and Carlson (2006) find that conscientiousness and perceived organizational support moderates the relationship between work–family conflict and job performance. Comparing to research on moderators at the individual level, few studies examine whether organizational systems strengthen or weaken the impact of work–family conflict on job performance.

Following ego depletion theory, we adopt the perspective of the organization to explore whether systems (i.e. organizational reward and caring) moderate the relationship between work–family conflict and emotional exhaustion and family-work conflict and job performance. Since this is a cross-level study, and information on hospitality industry employees nest within organizations, we adopt hierarchical linear modeling to combine multiple perspectives (managers and front-line employees) at multiple time-points. Figure 1 presents our research model.

## Theory development

### *How does WFC/FWC influence emotional exhaustion and performance?*

Ego depletion theory (Baumeister et al., 1998) acts as a theoretical anchor to explain the relationships between the main and moderating variables. Ego depletion theory argues that an individual's activities deplete their resources according to the following five principles. First, these resources include psychological elements that underpin self-executive functions (e.g. self-control and proactive work behaviors). Second, psychological resources are limited, and so, within a short time span, an individual can only exhibit a certain amount of self-control. Third, all executive functions require the same resource. The loss of resources in one area, therefore, reduces the resources available to another area. Fourth, whether an individual can successfully exhibit self-control

depends on the extent of their psychological resources. Fifth, the process of self-control consumes mental resources and these take time to recover after consumption (Baumeister, 2002; Baumeister et al., 1998). Individuals consume their own self-control resources while performing tasks to achieve goals. Once resource depletion occurs it leads to self-control failure (Baumeister, Vohs, & Tice, 2007; Tuk, Zhang, & Sweldens, 2015).

In the face of WFC/FWC individuals experience a loss of primary resources. A loss of secondary resources may occur if the internal resources are not immediately replenished, or if the replenishment of resources is less than what is being lost (Wang, Liao, Zhan, & Shi, 2011). Thus, if employees cannot invest in, or are unable to access resources, then they will lack resources to effectively regulate their behaviors and emotions (Vohs & Heatherton, 2000). Emotional exhaustion and a lowering of job performance are likely to occur under these circumstances (Wright & Cropanzano, 1998). If the organization can provide resources (e.g. rewards or care) to employees encountering WFC/FWC then it helps them to supplement the depletion of their internal resources and so return to a more balanced state (Greenhaus & Powell, 2006). Following Greenhaus and Powell (2006) and Wang (2007), we investigate whether rewards (financial resources) and caring (social resources) moderate the negative effects of WFC/FWC, that is, employees' emotional exhaustion and reduced job performance.

### ***The relationship between WFC and emotional exhaustion***

Following ego depletion theory, when individuals face incompatible demands between their job and their family there is a rapid increase in the rate of consumption of personal resources. Under a high WFC the individual has to invest significant resources to deal with conflicting demands from both sides (Ford, Heinen, & Langkamer, 2007). The result is the exhaustion of personal resources (Sonnentag & Zijlstra, 2006) and emotional exhaustion (Burke & Greenglass, 2001; Van Daalen et al., 2009).

For hospitality employees the occurrence of WFC (generally, the demands of irregular shifts and long working hours affect their family role) and the spread of FWC (low pay and stress from caring for the family spread to work) tend to the loss of internal resources. Individuals tend to consume a significant amount of personal internal resources while experiencing high levels of physical and mental exhaustion at work or at home. When employees return home exhausted after work and their family members want them to participate in conversations, they are unlikely to want to engage in such family activities. A lack of resources

also means they are likely to have a poor control over their emotions, language and behavior. Consequently, they may quarrel with their family members over trivial things and so experience further emotional exhaustion. Additionally, when employees face the demands of work while performing their family role, they worry about their ability to perform both roles and this result in a further loss of personal energy. When an individual faces significant family demands it adds pressure as they have to work before they have enough time to repair their depleted stock of resources. The continuous loss of personal resources and the inability to mitigate their loss increase the likelihood of emotional exhaustion (Sonnetag, Kuttler, & Fritz, 2010).

There is also evidence that WFC has a positive relationship with job strain (Nohe, Meier, Sonntag, & Michel, 2015). Allen et al. (2000) finds that as employees expend more energy on the job or the organization then there are fewer resources available for use at home and this causes even higher levels of emotional exhaustion (Demerouti, Bakker, & Bulters, 2004; Hall, Dollard, Tuckey, Winefield, & Thompson, 2010). Li, Lu, and Zhang (2013) find a negative relationship between individuals expending high levels of energy on the job or organization and their affective and normative commitment to the organization. Netemeyer, Maxham, and Pullig (2005) find that if employees give too much resource (e.g. energy, time and emotion) to the family then this generally reduces the resources available for work. This also causes emotional exhaustion. We, therefore, propose the following hypothesis:

Hypothesis 1: WFC positively relates to emotional exhaustion.

### ***The relationship between FWC and job performance***

According to ego depletion theory, when an employee from the hospitality industry faces high FWC, he or she needs to invest additional effort to cope with both job and family pressures. This lowers the amount of personal resources available (e.g. a loss of job motivation or energy) and so leads to poor performance (Netemeyer et al., 2005). When an employee from the hospitality industry faces high FWC, he or she has to invest a significant amount of time and energy, not only on the job, but also on the family (Lu, Hwang, & Kao, 2005).

During high FWC employees, job performance lowers (Karatepe & Sokmen, 2006; Witt & Carlson, 2006) along with productivity (Karatepe & Kilic, 2007). This occurs as family issues and tasks affect mean that the employee is unable to effectively concentrate on work (Netemeyer, Boles, & McMurrian, 1996). Therefore, we propose the following hypothesis:

Hypothesis 2: FWC negatively relates to job performance.

### ***The moderating effect of rewards on the relationship between WFC/FWC, emotional exhaustion and job performance***

Reward policies are the strategies and processes required to recognize the value of people and the contribution they make to achieving organizational goals (Armstrong, 2000). Organizations offer a combination of both financial and non-financial rewards. Examples of financial rewards include salaries, allowances, bonuses, insurance, time off, maternity leave and paternity leave. Examples of non-financial rewards include a career ladder, education and training and public recognition (e.g. giving employees clear direction toward promotion, and rewarding employees that pitch new ideas). Financial rewards encourage employees to devote their maximum effort to their work and this causes a significant loss of personal resources. Organizations, consequently, should also encourage employees to strive for non-financial rewards. For example, by giving employees training or career development opportunities they can gain new knowledge and skills which then increases their work efficiency. Organizations can use reward systems to effectively alleviate employees' loss of resources.

Analysis of organizational rewards relates to both employees' resource gains in terms of financial compensation, but also reveals their motivation and, physical and mental well-being (Grandey, Chi, & Diamond, 2013). Rewards are a source of personal energy (money) which can effectively replenish and alleviate employees' resource loss (Greenhaus & Powell, 2006). For example, when service employees encounter a high level of work–family conflict (WFC, FWC) then they perceive stress (in that they are overloaded with their work and family roles) which represents an excessive depletion of emotional resources. If organizations provide timely rewards, then service employees perceive an energy gain that they can invest in their family or themselves. This infers that a resource gain facilitated by financial rewards can mitigate the negative effects of WFC and FWC on service employees in terms of their emotional exhaustion and lowered work performance. Thus,

Hypothesis 3: Rewards moderate the relationship between WFC and emotional exhaustion in such a way that WFC is related more positively to emotional exhaustion when rewards are low rather than high.

Hypothesis 4: Rewards moderate the relationship between FWC and job performance in such a way that FWC relates more negatively to job performance when rewards are low rather than high.

### ***The moderating effect of caring on the relationship between WFC/FWC, emotional exhaustion and job performance***

Organizational care policies orientate toward work–family balance, eliminating work stress and taking care of an employee's mind and body

(Chuang & Liao, 2010). Care primarily relates to the provision of services including counseling, accident assistance, emergency assistance, employee communication and benefits committees, clear communication channels between employees and managers, improvement of the internal working environment and employee consultations to improve labor relations. The primary objectives of psychological counseling and healthcare are to educate employees about how to improve their mental health and to encourage them to maintain a healthy lifestyle. This enables employees to develop skills to solve problems in their daily life and so reduce the stress brought on by work and family.

Organizations, by taking actions to care for its employees, not only enhance object resources (physical and mental energy) that ease job pressures, but also generate social resources (i.e. a sense of caring) (Chuang & Liao, 2010). Organizations can mitigate the negative effects caused in the imbalance between work and family by creating home-friendly support policies (Allen et al., 2000). Organizational care policies supply object and social resources. These policies, therefore, increase employees' energy to deal with a lack of work–life balance and so mitigate problems within the family (Chang & Lu, 2011).

If the organization does not provide such care policies, then under high WFC/FWC employees find it hard to eliminate the direct or indirect negative effects of conflict (Chang & Lu, 2011). The result is a lack of opportunity to replenish the resources that are continuously depleted. This leads to secondary resource loss that worsens the degree of emotional exhaustion and so negative impacts on job performance (Wang et al., 2011). Hence, we hypothesize:

Hypothesis 5: Caring moderates the relationship between WFC and emotional exhaustion is moderated by caring in such a way that WFC relates more positively to emotional exhaustion when caring is low rather than high.

Hypothesis 6: Caring moderates the relationship between FWC and job performance in such a way that FWC relates more negatively to job performance when caring is low rather than high.

## **Method**

### ***Sample and procedures***

Heavy workload, conflicts in the work–family interface and emotional exhaustion impede employee retention and result in poor service delivery. Therefore, there is a need to examine employee retention in the hospitality industry (Davidson, Timo, & Wang, 2010). In this study, first-line service workers in tourist hotels comprise the study sample. Employees of tourist hotels work long hours under high pressure during



vacation periods, and this preempts the existence of work–office conflict (Karatepe & Sokmen, 2006). Thus, sampling first-line employees in hotels fits with our research purpose.

Respondents were first-line employees and their supervisors who worked in 33 five-star luxury hotels in Taiwan. These hotels, located in three metropolitan areas (Taipei, Taichung and Kaohsiung) each employed between 800 and 900 people. The data collection procedures started when the first author contacted each hotel manager to describe the purpose of the study and to invite their organization to participate. To avoid common method variance we collected information on hotels' rewards and institutional care at two time points. The time 1 questionnaires asked competent service personnel to provide responses about the scale of home–office conflict as well as personal information and data related to the control variables. Then, two weeks later (time 2) supervisors, responsible for assessing their employees' work performance, returned the questionnaires directly by post.

The final sample comprised 33 hotels and 288 personnel. We removed invalid responses and this left a total of 238 valid questionnaires (an effective response rate of 82.63%). The majority of the sample is women (69.3%) and the average age is 29.41 years (standard deviation, SD: 8.46 years). The average length of service is 35.6 months (SD: 42.6 months). In terms of hotel size, 25.9% employed more than 600 people; 26.2% from 401 to 600 people; 26.6% from 201 to 400 people and 17.4% fewer than 200 individuals.

### **Measurement**

Both WFC and FWC were measured with nine items each derived from the WFC scale developed by Carlson, Kacmar, and Williams (2000). Higher scores indicated higher levels of conflict experienced by participants. Cronbach's alpha was 0.83 for WFC and 0.89 for FWC. A sample item of WFC is 'The time I must devote to my job keeps me from participating equally in household responsibilities and activities' and a sample item of FWC is 'The time I spend on family responsibilities often interfere with my work responsibilities'.

Emotional exhaustion was measured by using the nine-item emotional exhaustion component of the Maslach Burnout Inventory (Maslach & Jackson, 1985). Participants were asked to report on previous month of experiences. Cronbach's alpha was 0.84. The sample item is 'I feel frustrated by my job'.

Rewards were measured with seven items derived from Chuang and Liao (2010). Cronbach's alpha was 0.83. Sample items are 'The store provides a variety of benefits'.

Caring was measured with five items each derived from Chuang and Liao (2010). Participants were asked to report their experiences about caring. Cronbach's alpha was 0.85. The sample items are 'The store cares about work safety and health of employees' and 'The store cares about work–life balance of employees'.

Job performance was measured by using Liao and Chuang (2004) seven-item scale. A sample item is 'Being friendly and helpful to customers'. Cronbach's alpha was 0.95. The sample item is 'Being able to help customers when needed'.

All employees to questions about WFC, FWC, emotional exhaustion, rewards and caring were assessed on a five point Likert type scale ranging between 1 (strongly disagree) and 5 (strongly agree). While supervisors' assessment of employees' job performance was made on a scale in the range 1 (strongly disagree) to 5 (strongly agree).

### ***Control variables***

We included a series of control variables to rule out alternative explanations. At the individual level, we controlled for participants' age, gender and work tenure. Age may negatively associate with WFC/FWC (Grandey & Cropanzano, 1999; Martins, Eddleston, & Veiga, 2002). Moreover, we controlled for the influence of gender on the relationships between WFC and service workers' performance outcomes (Eby et al., 2005) (1 = male and 2 = female). Young employees and those with shorter tenures experience more WFC (Grandey & Cropanzano, 1999). However, these effects also operate for older men and those with a longer tenure (Greenhaus, Parasuraman, Granrose, Rabinowitz, & Beutell, 1989).

At the group level, firm size is indicative of how organizational work–family policies are applied by supervisors (Kossek & Lambert, 2005) and it is reflective of other aspects of supervisory attitudes and behavior. Thus, firm size is considered to affect the relational demography of a work group (Deery, 2002), and it was included as an additional control variable.

### ***Data analysis***

To test our multi–level model, we conducted hierarchical linear modeling analyses to examine the proposed hypotheses (Bryk & Raudenbush, 1992). When using hierarchical linear modeling, we followed Enders and Tofghi (2007) suggestions for centering the level 1 and 2 predictors. For analyses focused on cross-level interaction, we group–mean centered the

**Table 1.** Means, SDs, reliabilities and correlations of variables.

Level	Variable	Mean	SD	1	2	3	4	5	6	7
Group	1. Group size	2.76	1.09	—						
	2. Reward	3.21	.73	.10	(.72)					
	3. Caring	3.35	.74	.02	.58**	(.62)				
Level	Variable	Mean	SD	1	2	3	4	5	6	7
Individual	1. Gender	1.69	.46	—						
	2. Age	28.9	7.97	.02	—					
	3. Tenure	33.97	40.78	.03	.68**	—				
	4. WFC	2.86	.72	-.04	-.28**	-.20**	(.83)			
	5. FWC	2.39	.70	-.13*	-.14*	-.09	.64** (.89)			
	6. Emotional exhaustion	2.79	.83	.00	-.28**	-.09	.42** .37** (.85)			
	7. Job performance	3.69	.70	.13*	.00	.01	.01	.00	-.06 (.95)	

Note.  $N = 238$  for all variables. Reliabilities are in parentheses on the diagonal. Correlations are significant at \* $p < .05$ , \*\* $p < .01$ . For employees,  $N = 238$ ; for units,  $N = 33$ . Values are for fixed effects with robust standard errors.

level 1 predictors. In addition, to partial out the main effects of the level 2 predictors, they were grand-mean centered.

The variables of interest in this study were conceptualized at the group level, which required an aggregation of care and rewards rated by employees. We examined aggregation statistics, including ICC(1), ICC(2) (Kozlowski & Klein, 2000) and the within-group agreement of multiple items  $Rwg$  (James, Demaree, & Wolf, 1984). The ICC(1) scores of reward and caring were 0.28 and 0.18, respectively. The ICC(2) values of these variables were 0.72 and 0.62, respectively. The mean  $Rwg$  values were 0.88 and 0.86, respectively. Furthermore, the results of ANOVA in rewards are: mean-square between groups (MSB) = 53.46, mean-square within groups (MSW) = 120.54 and F-test = 3.548\*\*\*. The results of ANOVA in caring are: MSB = 41.492, MSW = 126.903 and F-test = 2.657\*\*\*. Thus, the ANOVA results represent that these two variables can be aggregated in level 2.

## Results

Table 1 presents the means, SD, reliabilities and individual-level and group-level correlations among the study variables. At the individual level, WFC was significantly correlated with emotional exhaustion ( $r = .42$ ,  $p < 0.01$ ) and FWC was significantly correlated with emotional exhaustion ( $r = .37$ ,  $p < 0.01$ ). At the group level, rewards were significantly correlated with caring ( $r = .58$ ,  $p < 0.01$ ).

The results of CFA (see Table 2) demonstrated that the hypothesized six-factor measurement model offered a good fit to the research data;  $\chi^2(519.34) = 335$ ;  $\chi^2/df = 1.55$ , CFI = .91, IFI = .91, RMSEA = .07. We also compared the five-factor models; this model combined WFC and FWC into one factor. The results revealed that the five-factor model fit

**Table 2.** The results of confirmatory factor analyses.

Measurement models	$\chi^2$	df	$\Delta\chi^2$	$\Delta$ df	CFI	IFI	RMSEA
Six-factor model	519.34	335	—	—	.91	.91	.07
Five-factor model	677.94	344	158.60	7	.89	.88	.08
One-factor model	1704.09	365	1026.15	30	.76	.76	.18

Note: The Chi-square difference was compared based on the value of the Six-factor model (our proposed model). One-factor model: All items loaded on the first factor. Five-factor model: All WFC and FWC items loaded on the first factor, all emotional exhaustion items loaded on the second factor, all rewards items loaded on the second factor, while caring and Job performance items loaded on the third fourth and the fifth factors. Six-factor model: Our proposed model; all of the study factors were distinguishable.

the data significantly poorer than did the six-factor measurement model. Thus, we concluded that the six-factor model was the optimal model, which suggested that the convergent validity of all measures was acceptable.

### **Null model**

Before testing the hypotheses, we first had to run null models (no individual- or group-level predictors) to examine whether there was significantly systematic between-group variance. The results provide support for significant within-group variation in the workplace. The emotional exhaustion ICC(1) values are 0.09 (F value = 1.84;  $p < 0.05$ ), and the job performance ICC(1) values are 0.35 (F value = 4.28;  $p < 0.01$ ). For the aforementioned variables, there are significant differences in between-group variance, with 9% and 35% of the variation, respectively, due to the different levels of the organization to produce these variances. Hence, not only should regression analysis be used to consider the difference between groups, multi-level analysis should also be adopted. These results justify the appropriateness of cross-level analyses (Snijders & Bosker, 1999).

### **Random coefficient model**

As reported in Table 3, WFC is significantly positively related to emotional exhaustion ( $\gamma = .22$ ,  $p < 0.05$ ). Moreover, FWC is not significantly related to job performance ( $\gamma = -.10$ ,  $p > 0.05$ ). Thus, support is found for Hypotheses 1, but not for Hypotheses 2.

### **Moderating effect of reward on the relationships between WFC and emotional exhaustion**

As shown in Model 2 of Table 3, after controlling for the effects of the level 1 and 2 control variables, reward were found to moderate the relationship between WFC and emotional exhaustion ( $\gamma = .55$ ,  $p < 0.05$ ). To

**Table 3.** Hierarchical linear modeling results for WFC, FWC, emotional exhaustion and job performance.

	Emotional exhaustion				Job performance			
	Model 1	SE	Model 2	SE	Model 3	SE	Model 4	SE
Level 1: Individual								
Slopes $\gamma_{00}$	2.94**	.05	2.90**	.05	3.72**	.07	3.68**	.07
Gender	.04	.08	.01	.08	.13*	.07	.14*	.07
Age	-.02	.01	-.01	.01	.00	.01	.01	.01
Tenure	.00	.01	.00	.01	.00	.01	.00	.01
WFC	.22*	.11	.22*	.11				
FWC					-.10	.08	-.10	.08
Level 2: Group								
Group size			.10	.05			-.14	.07
Reward			-.14	.05			.23	.15
Care			-.26*	.10			.08	.16
WFC*Reward			.55*	.19				
FWC*Reward							-.67**	.18
WFC*Caring			-.68**	.15				
FWC*Caring							.58*	.18

Notes: SE = standard errors; \* $p < .05$ , \*\* $p < .01$ , for employees,  $N = 238$ ; for units,  $N = 33$ .

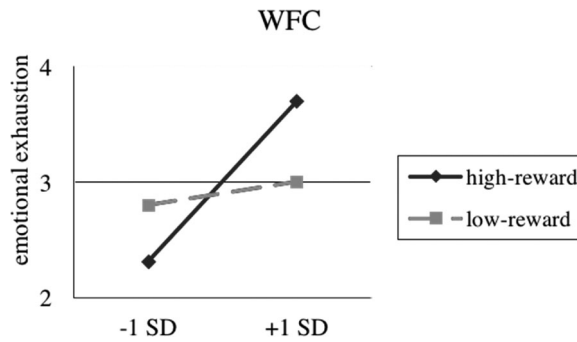
clarify the form of the interactions, we followed Aiken and West (1991) procedures and plotted the WFC relationship under high (1 SD above the mean) and low (1 SD below the mean) levels of reward policies (see Figure 2). The figures show that WFC is strongly and positively related to emotional exhaustion when hotels' rewards are high. However, it's a significant interaction, but in the opposite direction, and that low rewards attenuate the positive relationship. Therefore, Hypothesis 3 is not supported.

### ***Moderating effect of reward on the relationships between FWC and job performance***

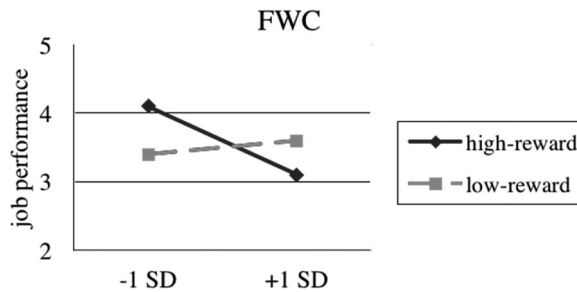
Model 4 of Table 2 presents the results of testing Hypotheses 4, according to which reward negatively moderate the FWC–job performance relationship ( $\gamma = -.67$ ,  $p < 0.01$ ). To clarify the moderating effect of reward, we plotted the FWC–job performance relationships under high (1 SD above the mean) and low (1 SD below the mean) levels of reward (see Figures 3). As Figure 3 indicates that FWC is positively related to job performance when lower reward exists. Therefore, Hypothesis 4 is not supported.

### ***Moderating effect of caring on the relationships between WFC and emotional exhaustion***

Model 2 of Table 2 indicated that caring were found to moderate the relationship between WFC and emotional exhaustion ( $\gamma = .55$ ,  $p < 0.05$ ). In addition, we applied Aiken and West (1991) approach to plot the



**Figure 2.** The cross-level interaction of level 2 reward on WFC and on level 1 emotional exhaustion relationships.

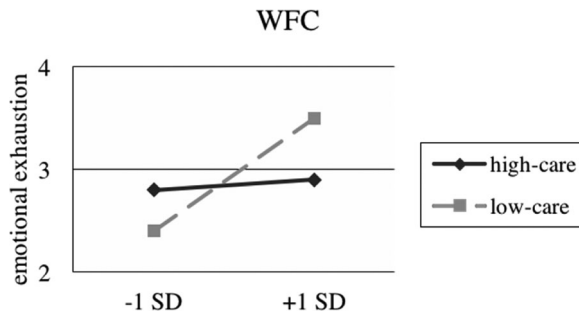


**Figure 3.** The cross-level interaction of level 2 rewards on FWC and on level 1 job performance relationships.

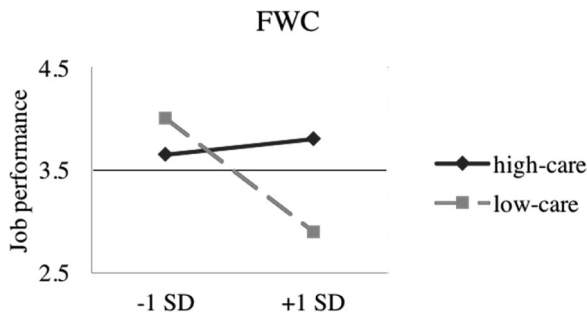
forms of the interactions (see Figure 4). As shown in Figure 4, WFC is strongly and positively associated with emotional exhaustion, when caring are low (1 SD below the mean). However, this positive relationship was weakened for service workers with high levels caring (1 SD above the mean). Therefore, WFC relates more positively to emotional exhaustion when caring is low rather than high. Hypothesis 5 is supported.

### ***Moderating effect of caring on the relationships between FWC and job performance***

Model 4 of Table 2 presents the results of testing Hypotheses H6. According to these results, caring positively moderate the association between FWC and job performance ( $\gamma = .58, p < 0.05$ ). In addition, we plotted the FWC–job performance relationship under high (1 SD above the mean) and low (1 SD below the mean) levels of caring (see Figure 5). As can be seen in Figure 5, FWC is strongly and negatively associated with job performance under low levels of caring. However, such a negative relationship is weakened for service workers under high levels of caring. Therefore, FWC relates more negatively to job performance when caring is low rather than high. Hypothesis 6 is supported.



**Figure 4.** The cross-level interaction of level 2 caring on WFC and on level 1 emotional exhaustion relationships.



**Figure 5.** The cross-level interaction of level 2 caring on FWC and on level 1 job performance relationships.

## Conclusions and suggestions for future research

### *Theoretical contributions*

#### *The relationships between WFC/FWC, emotional exhaustion and job performance*

The characteristics of hospitality work mean that employees readily deplete their valuable resources (i.e. their time and, physical and mental energy). Employees often struggle to meet their work and family roles in a way that results in a work–family or family–work conflicts. Scholars in organizational behavior and human resource management largely agree that FWC has negative effects on the individual and their job performance (Allen et al., 2000; Eby et al., 2005). This relationship, however, requires further exploration (Allen et al., 2000; Amstad et al., 2011). Our study addresses this issue so deepens understanding of the effects of WFC/FWC.

Both Kinnunen, Vermulst, Gerris, and Makikangas (2003) and Posig and Kickul (2004) find a positive relationship between WFC and emotional exhaustion. Our results add support to, and extend these findings. Our findings show that the relationship between FWC and job performance is insignificant. One explanation for this result is that the influence

of FWC on job performance may depend on individual differences; such as, the big five personality traits, negative affectivity (Bruck & Allen, 2003) or perceived organizational support (Witt & Carlson, 2006).

***The moderating effect of rewards on the relationships between WFC/FWC, emotional exhaustion and job performance***

Our results show that rewards have a positive moderating effect on the relationship between WFC and emotional exhaustion. This means Hypothesis 3 is unsupported. Moreover, there is a negative moderating effect between FWC and job performance (i.e. Hypothesis 4 is also unsupported). This means that rewards not only strengthen the relationship between WFC and emotional exhaustion, but also strengthen negative effect between FWC and job performance. These results contradict the hypothesized direction of the relationships.

We suggest two reasons for these findings. First, according to ego depletion theory, employees can easily replenish the internal resources lost at work (i.e. emotional resources) through organizational rewards. However, under these circumstances, employees devote cognitive attention on how to obtain these rewards. This shows how employees compensate for their loss by increasing their resource investments in their work to raise their returns in external resources (i.e. money). As employees respond to the signal to work harder for rewards so they experience greater levels of emotional exhaustion. Moreover, under higher rewards FWC is particularly detrimental to job performance. Employees cannot generally draw on financial rewards to mitigate their emotional exhaustion and under these circumstances FWC signals that there is even greater demand for their time and energy. This further depletes employees' self-regulatory resources while deepening their sense of emotional exhaustion.

Second, employees' need to invest significant efforts to achieve their goals as these associate with performance that, in turn, determines their salaries and rewards. Employees, when incentivized by a high reward system, choose to invest their time at work. This makes employees feel that they are unable to fulfill both their work and family roles. The overall result is that employees feel overwhelmed by work and family demands and this exhausts their remaining resources and their performance declines.

***The moderating effect of caring on the relationships between WFC/FWC, emotional exhaustion and job performance***

We report that caring has a negative moderating effect on the relationship between WFC and emotional exhaustion (i.e. supporting Hypothesis



5). Furthermore, we also find a positive moderating effect on the relationship between FWC and job performance (i.e. as per our prediction in Hypothesis 6). According to the ego depletion theory, when employees interpret organizations' caring policies are a form of resource that can help them to handle their work and to alleviate work stress. By contrast, workers reporting low caring are vulnerable to additional resource losses and possess relatively low levels of work motivation. Instead, employees are motivated to conserve, rather than to spend resource when experiencing high FWC. These results are consistent with the above hypothesized relationships.

### ***The contribution of this multi-level research on WFC/FWC***

Our study contributes to the work-to-family conflict (WFC) and family-to-work conflict (FWC) literature by extending previous research in the following ways. First, Deery (2002), when exploring WFC/FWC in the hospitality, finds that variations in hotels' management policies impact on job performance. These types of study, however, fail to investigate the influences of organizational policies on hotel employees' WFC/FWC. In addition, studies only report the relationship among individual-level variables and disaggregate organizational factors at the individual level (Gavin & Hofmann, 2002). Thus, previous studies either largely ignore organizational factors or treat them as control variables. However, we find that organizations' caring can effectively alleviate the negative effects from WFC/FWC. This adds to the understanding about how different level factors (i.e. organizational as well as individual) influence WFC/FWC.

Second, although rewards motivate employees (Chuang & Liao, 2010) it increases the loss of their own resources. This pattern suggests researchers should invest more effort in understanding how different rewards strategies explicate the effects of WFC/FWC on employee' emotional exhaustion and, ultimately, on their job performance.

### ***Practical implications***

Drawing on insights from the findings we make the following recommendations for human resource managers. First, we recommend managers in hotels provide employees with adequate organizational resources, particularly relating to caring (e.g. pursuing work-life balance, eliminating work stress and taking care of employees' physical and mental well-being). Such caring reduces the effects of WFC/FWC on emotional exhaustion and of FWC on job performance, specifically.

Second, to avoid the negative moderating effect of rewards, HR managers in hotels could design employee caring independent from material compensation. It is recommended that managers consider each employee's individual needs and circumstances in order to evaluate the costs and benefits to the firm of various ways of caring policies. For example, the hotel could consider employees' out of work situations (e.g. the need to collect children from school) when making schedules. Establishing communication policies and giving care and feedback to employees would make them feel considered by their companies.

### **Limitations**

This research has several limitations. First, although we collected data at different time periods, its cross-sectional nature precludes the interpretation of the direction of the causality among the variables. Second, to minimize the impact of bias, we conducted Harman's one-factor test to ensure that the questionnaire design was easy to understand. We also used reversed scored items and collected data from different sources at different time points. Third, the sole measure of job performance was supervisor rating. Supervisor-rated job performance perspectives, however, have strengths as well as weaknesses (Liao & Chuang, 2004). It is possible that supervisors evaluate job performance from different perspectives and criteria in a way that could be subjective (Higgins, Judge, & Ferris, 2003). Customer-rated job performance is important in the hospitality industry. Future research could collect customer ratings in order to obtain a more complete understanding of the effects of employee's WFC and FWC on job performance.

### **Recommendations for future research**

Recommendations for research are driven toward expanding the generalizability of the findings of this study. First, longitudinal or experimental research would be helpful to help researchers understand the bidirectional causality in hotel employees' WFC/FWC. Second, by investigating personality, and organizational factors (e.g. climate or human resource management policies) future research could establish whether these variables serve as antecedents or moderators in the WFC/FWC and emotional exhaustion/job performance relationships. Third, supervisors' leadership style is crucial to WFC/FWC. Transformational leadership may moderate the relationship between WFC and its consequences (Straub, 2012). Further research should, therefore, explore the effects of these contextual variables on the relationships among WFC/FWC and

various outcomes. Fourth, when employees put too much effort in pursuing salary rewards, they will increasingly lose resources and cannot replenish them outside of work. The result is negative effects on cognitive reactions and physical behaviors. Researchers can usefully investigate whether the effects of the reward and care system varies on employees' subsequent cognitive reactions and physical behaviors. Finally, since we sample hotels in the specific geography of Taiwan this may limit the generalizability of our findings. Future research could usefully consider samples from different cultural backgrounds, or different countries.

### Disclosure statement

No potential conflict of interest was reported by the authors.

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