

Health Workers' Work-to-Family Conflict: The Separate and Joint Effects of Workload and Emotion-rule Dissonance

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Abstract. Health workers are highly risky population of work-to-family conflict (abbreviated as WFC here after). This study tested how workload and emotion-rule dissonance associate with health workers' WFC using survey data of a large sample which consists of 2763 doctors and nurses from 140 hospitals in China. Results show workload and emotion-rule dissonance each has independent effect on WFC, and their interactive effect is also significant. The findings have important theoretical and practical implications for the understanding and intervention of health workers' WFC.

Introduction

Work-to-family conflict are likely to suffer modern people as many of them should satisfy requirements from both unit and family (Michel, Kotrba, Mitchelson, Clark, & Baltes, 2011). A mount of studies show WFC is (one of) the prominent origin of work health problems such as burnout, depression, and hypertension; and can consequently lead to greater absenteeism and turnover intentions (see Amstad, Meier, Fasel, Elfering, & Semmer, 2011). In other words, WFC associates tightly with individuals' well-being as well as organizations' efficiency. Therefore scholars regard it very important to examine the factors causing WFC (Byron, 2005).

Previous research recognized workload as one of the primary job factors leads to WFC (Michel et al., 2011). Emotion-rule dissonance, which is the essential component of emotional labor which is the salient feature of a variety of service-oriented jobs characterized by frequent interactions with clients or customers, has also been investigated by a number of studies as an important predictor of WFC (Hülshager & Schewe, 2011; Holman, Martinez-Iñigo, & Totterdell, 2008; Sanz-Vergel, Rodríguez-Muñoz, Bakker, & Demerouti, 2012; Xanthopoulou, Bakker, & Fischbach, 2015). However, seldom studies considered the effect of workload and emotion-rule dissonance on WFC together in a same investigation. Especially, does the two factors exacerbate each other's adverse influence upon WFC, i.e. is there an interactive effect between the two, is an unexplored issue. Testing the combining and joint effects of workload and emotional labor is critical to distinguish different mechanisms of the causes of WFC. Therefore the current study using a large sample of staffs (2763) from more than a hundred of hospitals located in a west province of China, which is a sound context for the research inquiry, examined the framework as proposed in figure 1.

Results show workload and emotional labor each has unique effect on WFC. And their interactive effect is also significant. The theoretical and practical implications are discussed at the end.

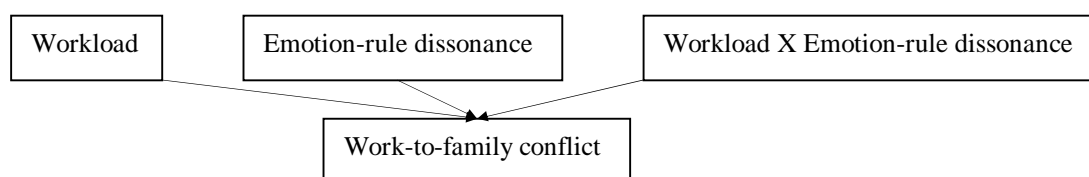


Figure 1. Theoretical model to be tested in this study

Theoretical Background and Hypotheses

Health Care Workers' Work-to-family Conflict. According to Greenhaus & Beutell, work-family conflict is “a form of inter-role conflict in which the role pressures from the work and family domains are mutually incompatible in some respect” (1985: p. 77). Work-family conflict can be further differentiated into two processes in terms of the influencing direction, which has been conceptualized by scholars as work-to-family conflict (also termed as work interference with family) and family-to-work conflict respectively. As family roles often are less structured and more permeable compared to job roles (Fuß, Nübling, Hasselhorn, Schwappach, & Rieger, 2008), this study focuses on health care workers' work-to-family conflict.

Studies consistently found that WFC has many negative effects on employees' job well-being and leads to lower health as well as higher quit intention (Amstad et al., 2011). Unfortunately, it turns out that health care professionals are just the high risky group of people who encountering WFC. Studies conducted in German (Fuß et al., 2008), Italy (Portoghese, Galletta, Coppola, Finco, & Campagna, 2014), and Greek (Montgomery, Panagopolou, & Benos, 2006) and so on, all reported high WFC experienced by physicians and nurses. And WFC is recognized as one of the major reasons of the worldwide risk of the shortage of health human resources which worries WHO (World Health Organization, 2008).

Workload and Emotional Labor's Main Effects.

Workload and WFC. Workload, which refers to the perception of having too many job tasks thereby having to work fast under time pressure (Ilies, Huth, Ryan, & Dimotakis, 2015), may be the most obvious factor causing WFC. A number of studies have evidenced that workload is positively and strongly associated with WFC (Yildirim & Aycan, 2008).

In terms of conservation of resources theory (COR, Hobfoll, 1989) and Job-demands and resources model (J-DR model, Schaufeli & Bakker, 2004), workload which means quantitative job demands would deplete employees' personal energies thus leaves fewer emotional, physical, and cognitive resources which are required to deal with their family tasks at home, consequently leads to WFC. Health care workers' workload is likely to be high. Doctors and nurses in many countries work many hours a day and frequently work overtime, and they usually have rigid work schedule. Therefore we hypothesize:

H1: *Health care workers' perceived workload is positively associated with their WFC.*

Emotion-rule Dissonance and WFC. For many occupations, especially in the service industry, employees are generally required to display appropriate while suppress inappropriate emotions (usually positive emotions are encouraged) in interactions with customers or clients (Diefendorff & Richard, 2003). This necessity of regulating one's emotion expression to fit the requirements of service-related interactions has been conceptualized as emotional labor initially by Hochschild (1979).

Scholars further distinguished three critical components of the process of emotional labor, namely emotion-rule dissonance, surface acting, and deep acting. Emotion-rule dissonance refers to “the discrepancy between felt emotion and emotion rules that occurs before emotion regulation” (Holman et al., 2008, p. 303). Many researchers regard emotion-rule dissonance as the antecedent of emotion regulation (deep and surface acting) thus plays a central role in the emotional labor process (Hülshager & Schewe, 2011). Though are scarce, several studies have empirically demonstrated that emotional labor causes WFC (Cheung & Tang, 2009; Sanz-Vergel et al., 2012; Seery, Corrigan, & Harpel, 2008; Wagner, Barnes, & Scott, 2014; Yanchus, Eby, Lance, & Drollinger, 2010). The basic theoretical arguments of why emotional labor is adverse to WFC can be summarized into two lines. First is the spillover argument. It is easy to understand that emotional labor in workplace will produce negative emotions such like anxiety, anger, or guilt (Judge, Ilies, & Scott, 2006). Then, these unpleasant emotions will spill over from work-to-family, consequently resulting in bad performance feelings in family life (Sanz-Vergel et al., 2012; Williams & Alliger, 1994). The second is the depletion argument. Theorists asserted that regulatory processes are employed by individuals to deal with emotion-rule

dissonance. But these regulatory processes are recognized as very mentally effortful thus are likely to deplete energy (personal resources) and finally lead to family dysfunctions.

The emotional labor of health care profession is also high (Yildirim & Aycan, 2008). Doctors and nurses are required, explicitly or implicitly, by their organizations, to show empathy, patience, or caring and so on, to the patients when they interact. Based on these rationales, we hypothesize:

H2: Health care workers' perceived emotion-rule dissonance is positively associated with their WFC.

The Joint Effects of Workload and Emotional Labor. While the theoretical and empirical foundations of workload and emotion-rule dissonance's influence on WFC have been well accumulated (largely separately) by previous research, whether the two would interactively influence WFC has yet been investigated. Montgomery et al (2006, p. 204) noted in their study that 'the combination of heavy workloads and emotional demanding interactions with patients can mean less time and energy available for family interaction and leisure'. However they didn't actually focus on and empirically test the interactive effect of workload and emotional labor on WFC.

We propose that as health care workers usually face high workload, the emotional labor (emotion-rule dissonance) will exacerbate the workload's harmful effect on WFC. As mentioned above, emotional labor is quite energy consuming because the regulatory process are particularly mentally effortful. According to conservation of resources theory, the two resources losses caused by workload and emotional labor (through different mechanisms) will form a 'loss spirals' (Hobfoll, 1989, p. 519). The depletion of regulatory resources (Wagner et al., 2014) due to emotional labor will result in those health care workers who also loss resources due to overload 'most vulnerable' (Hobfoll, 1989, p. 519). Thus we propose:

H3: Health care workers' perceived workload and emotion-rule dissonance interactively influence WFC. When perceived emotion-rule dissonance is high, the association between workload and WFC is stronger.

Method

Sample and Data. Participants were 2763 doctors and nurses of 140 hospitals which distribute in a western province of China. Averagely 19.7 health workers per hospital completed the survey questionnaire.

Of the 2763 health workers, 59.68% were females, 81.68% got married, 78.41% held college level or higher education, 67.64% were doctors (others were nurses). The average age was 37.48 years (SD = 10.46).

Measures.

Workload. We adopted a short scale which consists of three items developed by Bakker, Demerouti, Taxis, Schaufeli, and Schereurs (2003) to measure workload. The items refer to quantitative, demanding aspects of the job (e.g., time pressure, working hard). The Cronbach's alpha of these three items was .69.

Emotion-rule Dissonance. We used Xanthopoulou, Bakker, and Fischbach's (2015) measure of emotion-rule dissonance which includes five items. They developed this scale based on Zapf et al.'s work (2000; see Xanthopoulou, Bakker, and Fischbach, 2013, p.78). One sample item is: during your work, how often do you have to suppress your own feelings (e.g., irritation) to give a 'neutral' impression? The Cronbach's alpha of this scale was .70.

Work-to-family Conflict. Carlson et al.'s (2000) 9-item work-to-family conflict scale was widely used measurement of work-to-family conflict. It has three dimensions that respectively capture time-, strain-, and behavior-based conflict. Each subscale consists of three items. One example item is : I am often so emotionally drained when I get home from work that it prevents me from contributing to my family. We used the average score of the 9 items to measure the global work-to-family conflict of health worker's. The Cronbach's alpha of the 9 items was high (.91), which suggested the reasonability of using the global score.

The above three scales were originally in English. Other researchers in China had translated and validated the Chinese version of these three scales and used them in studies published on domestic journals. We checked and found the quality of the translation was guaranteed. So we used them with only little adaptation to the health worker's context. For all the three measures, respondents rated on a 5-point scale (1=strongly disagree to 5= strongly agree).

Results

Descriptive Statistics. The means, standard deviations, and correlations of the three main variables were shown in Table 1. All of the bivariate correlations of the three variables were significant ($p < .001$) and moderate (ranged from .30 to .39). These statistics primarily suggested that: firstly, workload and emotion-rule dissonance both have positive relationships with health worker's work-to-family conflict (supporting H1 and H2); secondly, the three variables are discriminable constructs as all the correlations were not high (the distinction of workload and emotion-rule dissonance was particularly important as they are both job demands and predictors of work-to-family conflict).

Table 1 Means, Standard Deviations, Correlations for Main Variables

<i>Variables</i>	Mean	SD	1	2	3
1.Workload	3.78	0.55	.56 ^a		
2.Emotion-rule dissonance	3.80	0.82	.33 ^{***}	.70	
3.Work-to-family conflict	3.43	0.95	.30 ^{***}	.39 ^{***}	.91

N = 2750. Internal consistency reliabilities are on the diagonal.

*** $P < .001$

Regression Analysis. We conducted multiple regression analysis to test the research hypotheses. We took three steps. In model 1 we controlled the demographic variables such as gender, age, and so on. Results show (Table 2) these variables had trivial effects on health worker's work-to-family conflict (the total R square explained by these variables was only 1%). Only the regression effect of marriage remained significance in the final model (model 3). And the major difference was between those who were single and those who were married. Noticeably, there was insignificant difference of WFC between doctors and nurses. That means, as to WFC, doctors and nurses confront a common situation.

Table 2 Regression on Work-to-family Conflict

<i>Demographic variables</i>	Work-to-family conflict(N=2750)		
	Model 1	Model 2	Model 3
Gender	-.08	-.07	-.06
Age	-.01 ^{***}	0	0
Education	-.06 ^{**}	-.01	-.01
Marriage	yes	no	yes
Job (Doctor or nurse)	-.07	-.06	-.05
<i>Independent variable</i>			
Workload		.30 ^{***}	.33 ^{***}
Emotion-rule dissonance		.38 ^{***}	.39 ^{***}
<i>Interaction</i>			
Workload * Emotion-rule dissonance			.20 ^{***}
<i>F Value</i>	4.21 ^{***}	70.12 ^{***}	68.65 ^{***}
<i>R Square Change</i>	.01	.18	.01
<i>Adjusted R Square</i>	.01	.18	.20

Marriage was a categorical variable which includes unmarried, married, divorce, spouseless. We suppress the results to shorten the table.

** $P < .01$; *** $P < .001$

In model 2 we added workload and emotion-rule dissonance to test their main effects. As can be seen in Table 2, the main effects of workload and emotion-rule dissonance were both significant,

supporting our Hypothesis 1 and 2. The results also suggest that though workload and emotion-rule dissonance are mutually related variables, they are independent antecedents of WFC.

In model 3 we added the interaction of workload and emotion-rule dissonance. As expected, the interactive effect of workload and emotion-rule dissonance was positive and significant, and further explained 1% variance of WFC.

To illustrate the specification of the interactive effect, we graphed the regression line of high VS low emotion-rule dissonance by plotting the simple slopes at one standard deviation above and below workload. As Figure 2 shows, workload increased WFC acutely when emotion-rule dissonance was high. When emotion-rule dissonance was not so high, the adverse function of workload on WFC was milder.

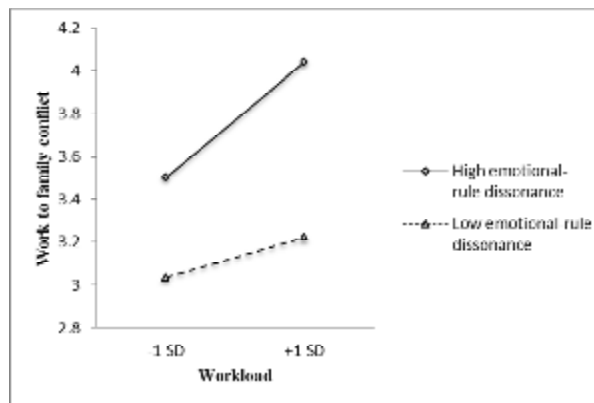


Figure 2. Interactive Effect of Workload and Emotion-rule Dissonance on Work-to-family Conflict

Discussion and Conclusion

Theoretical and Practical Implications. With a considerable large sample (N=2763) from more than a hundred of hospitals we investigated how health worker's workload and emotional labor caused their WFC. We found health worker's perception of workload and emotion-rule dissonance were moderately correlated. However each of them had unique effect on WFC. Moreover, there was significant enhancing interactive effect of workload and emotion-rule dissonance on WFC, which means they will exacerbate each other's adverse function.

The independent effects and the interactive effect imply that there are distinguishable mechanisms of workload and emotional labor to cause WFC. Traditionally researchers proposed time-based, strain-based, and behavior-based mechanisms to explain how work interferes family life (Michel et al., 2011). A little research focused on the emotion perspective of WFC (Judge et al., 2006). While emotions have been regarded as the mediators of the task demands and work-to-family link by some studies (Judge et al., 2006; Williams & Alliger, 1994), recent research demonstrated that emotional labor directly leads to WFC (Cheung & Tang, 2009; Sanz-Vergel et al., 2012; Seery et al., 2008; Wagner et al., 2014; Yanchus et al., 2010). In a competing and interactive framework we further highlighted the unique and functional role of emotional labor for WFC. This implies that the emotion regulatory process is particularly mental resources consuming and destructive. Research should further explore the basic neural interpretations of why such an internal social cognitive process is so energy depleting.

Practically, our study suggests that policy makers like Chinese Ministry of Health should concern family friendly policies or other functional compensations for health workers as these professionals usually confront both high workload and high emotional labor demands. The workload and emotional labor have dual and catalytical harms to their family life.

Conclusions. We found evidence that workload and emotion-rule dissonance have independent and interactive harmful effects on health workers' WFC. These findings have important theoretical and practical implications.

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