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Original Article

Three-way Interactions of Workload, Social Support and Coping Strategy on Job Burnout

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Abstract

Job burnout is an occupational phenomenon that can have a major impact on physical and mental health and job performance. Accordingly, this research examined (a) workload as a job demand and (b) social support in the workplace and problem-focused coping strategy as a job resource and personal resource, respectively. The purpose of this study was to test the buffering effect of social support in the workplace and problem-focused coping strategy on the relationship between workload and job burnout. Data were collected by an online survey from 260 civil servants in the government sector in Thailand. The results showed significant three-way interactions ($\beta = -1.82$, $p < 0.05$) in which the positive effect of workload on job burnout is diminished when civil servants have a high level of social support in the workplace and a high level of problem-focused coping strategy. The findings provide a theoretical implication by examining the interaction of job and personal resources as a buffering effect on the positive relationship between workload and job burnout. Practical implications for organizational development are shared as potential mechanism for the reduction of burnout, particularly in managing well-being in work-related stressful situations.

Job burnout is described as one of several factors that have a significant impact on individual physical and mental health (e.g., cardiovascular issues and insomnia). This can lead to negative outcomes at an organizational level such as employees' quality of life, absenteeism, job performance, and turnover intention (Maslach, 2001). Hence, the topic of job burnout has long been a concern in human resource management. In particular, employees with high job burnout are likely to report a turnover intention, which interrelates with the functions and processes that contribute to an organizational investment for recruiting or training new employees (Soelton et al., 2020). As follows, it is important to understand the factors that influence job burnout in order to prevent and reduce it.

Job burnout has received great attention in the past twenty years. Most of the studies have been conducted on medical staff, social workers, and lecturers because personnel in these occupations interact with people on a daily basis, which can result in physical and mental health consequences leading to job burnout (Schaufeli et al., 2009). Nonetheless, white-collar workers who perform in an office or other administrative jobs, such as civil servants in Thailand's public sector where the demands of work and the fast pace have been increasing, have been less studied. Since the Office of the Civil Services Commission (OCSC) announced the policy to alleviate the civil servant quota for reducing the fiscal burden for the retirement safety net in the future, this is likely to result in a large amount of workload on civil servants in Thailand. Thus, studying various

occupational groups will clarify the major sources of job burnout in different types of jobs (Maslach & Leiter, 2016).

According to the work of Maslach et al. (2001), job burnout comprises three dimensions, which are emotional exhaustion, cynicism, and inefficacy. First, emotional exhaustion involves a feeling of either physical or mental wearing-out, fatigue, and loss of energy. Second, cynicism describes a negative feeling or attitude or withdrawal toward others and self-responsibility, and finally, inefficacy refers to a negative response to oneself or personal achievement that is explained in terms of depression, lower confidence, poor productivity, and problem-solving inability. According to the Job Demands-Resources Model (JD-R model), stress is a result of high job demands (e.g., workload, role conflict, work pressure) or low job resources (e.g., social support, autonomy, skill variety) (Bakker & de Vries, 2020). When stress is accumulated over an extended period of time, employees begin to experience a degree of job burnout.

As stated by the JD-R model, workload is known as one of the job demands that have an influence on job burnout (Dewi & Riana, 2019). Although workload has many dimensions such as time, physical tasks, mental tasks, amount of work, and complexity, the mental workload and amount of work are the common elements of workload that contribute to employee stress. There has been a stream of research showing that job burnout is an outcome of high workload (Maslach & Leiter, 2007; Maslach, 2001; Rosse, 1988; Van Woerkom et al., 2016). On the other hand, social support in the workplace is one of the job resources that can reduce job-related stress and the consequent job burnout (Bakker et al., 2005; Velando-Soriano et al., 2020). Recent literature has reported that social support in the workplace, for example, social support from supervisors and co-workers, is associated with lower levels of job burnout (Avanzi et al., 2018; Chou, 2015; Sloan et al., 2013; Velando-Soriano et al., 2020), which is consistent with the JD-R model. Furthermore, researchers have found that coping strategies can become an effective personal resource that employees can apply in managing stressful work situations. Among the coping strategies, problem-focused coping strategy is proposed as a more effective approach to making an effort to resolve work-related problems.

However, the interaction between organizational resources and personal resources, such as social support in the workplace and problem-focused coping strategy, is less understood in the literature. This research thus aims and expects to fill this gap by testing a three-way interaction between the two resources and one demand (i.e., problem-focused coping strategy as a personal resource, social support in the workplace as a job resource, and workload as a job demand related to job burnout) among civil servant employees in Thailand. Building upon the findings of past studies, it is postulated that both social support in the workplace and problem-focused coping strategy can buffer the impact of workload on job burnout (Devereux et al., 2009). In a study of Xanthopoulou et al. (2007), the JD-R model was used to test whether high job demands impact physical and mental health and high job resources impact productivity, e.g., social support in the workplace might buffer the negative effects of workload on job burnout. Thus, this study also implements the JD-R model as a framework to test whether high levels of workload will lead to high levels of job burnout. Moreover, when individuals have high levels of social support in the workplace and high levels of problem-focused coping strategy as moderators, they may buffer the relationships between workload on job burnout, which means that the effect of workload on job burnout will be decreased. Work environment factors (e.g., workload and social support) and coping strategies affect people's cognitive perceptions and behavioral outcomes (Demerouti et al., 2019), and these impacts will be presented in this study.

Literature Review

This section aims to review the definitions and impacts of job burnout, the JD-R model, workload, social support in the workplace, and problem-focused coping strategy.

Job Burnout

Burnout' was used by Graham Greene in 1961 in a novel named A Burnt-out Case, in which a miserable architect quit his job and left everything behind in the African jungle. Furthermore, Dr. Herbert J. Freudenberger, a psychiatrist, used this word in the 1970s to describe people who have similar feelings as those of the architect in the novel. He collected the data regarding negative feelings (for example: upset, moody, etc.) by interviewing teenage volunteers working in the human services, which became an interesting topic to researchers (Savicki, 2002).

The concept of burnout includes the experiences of people in the workplace where burnout can easily happen for many reasons such as unfairness, lack of control, social relationships in the workplace, insufficient manpower, etc. (Bakker et al., 2014). In other words, the feelings of burnout may arise when an imbalance of job demands over job resources can make people respond to chronic interpersonal stressors (Bakker et al., 2003). As mentioned above, the three dimensions of this response are (a) exhaustion, (b) cynicism, and (c) inefficacy. The exhaustion dimension is demonstrated when people have feelings of dispiritedness, disheartenment, or depression, which can occur in both mental and physical aspects. Cynicism refers to the interpersonal context that has negativity, detachment, or seclusion from others and/or the tasks of work. The inefficacy represents the self-evaluation that causes the feelings of low self-esteem, lack of achievement, or lack of potential to do the tasks at work. Because of that, 'Burnout' has become 'Job burnout' with regard to a specific type of work-related stress (Maslach & Schaufeli, 1993).

The impact of job burnout affects both individual and organizational performance. On the part of an individual, the feeling of exhaustion may occur in terms of both mental and physical health, which can affect their relationships and the environment in the workplace and performance in their tasks. The worst-case scenario of job burnout on the part of an individual involves psychosomatic problems that can impact various aspects in an individual's life (Demerouti et al., 2014). With regard to an organization, job performance is an important factor, and every organization wants their employees to work effectively for in-role performance or extra-role behavior, and even more, to support their employees to have Organizational Citizenship Behavior (OCB), which is one of the positive work behaviors (Halbesleben & Buckley, 2004). As job burnout can affect job performance, all organizations should be aware of the factors that can influence their employees regarding job burnout

The Job Demands-Resources Model (JD-R Model)

The Job Demands-Resources model (the JD-R model) was extended by Demerouti et al. (2001) from the Job Demands-Control model of Karasek (1979). The main purpose of this model is to explore job characteristics as antecedents of job strain and to explain the importance of a balance between the two categories of job characteristics, namely job demands and job resources. In particular, an imbalance between these two job characteristic categories leads employees to experience job stress and strain, including exhaustion, anxiety and burnout. This in turn negatively affects job performance and organizational outcomes (Schaufeli & Taris, 2014).

The term 'job demands' refers to "those physical, social, or organizational aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological costs" (Demerouti et al., 2001). Work overload, work pressure, emotional demands, and mental demands are examples of job demands. On the other hand, job resources refer to "those physical, social, or organizational aspects of the job that may do any of the following: (a) be functional in achieving work goals, (b) reduce job demands and the associated physiological and psychological costs, (c) stimulate personal growth and development" (Demerouti et al., 2001). Examples are social support in the workplace include autonomy, fairness, and career opportunities.

Both job demands and job resources evoke two psychological processes, which are the health-impairment process and the motivational process (Bakker & Demerouti, 2017). More specifically, job demands are associated with the former process in which demands affect the feelings of employees, such as exhaustion or fatigue that can impact physical or mental health. By contrast, job resources can motivate employees to become engaged with and feel like they are a part of their organization. When employees gain more personal and job resources, they are more likely to finish their tasks more efficiently and are willing to dedicate their efforts to achieve their work and organizational goals (Bakker et al., 2005).

In sum, the JD-R model describes that two pathways leading to different sets of outcomes. Since the focus of this research is on job burnout, the health-impairment process can be applied to postulate job demands as a predictor of job burnout (Bakker & de Vries, 2020). When employees are given a high level of job demands, especially over a long period time, they are more likely to experience job burnout.

Workload as a Job Demand

Workload, one of the job demands, is a factor that can harm employees' physical and mental

health. Workload has been defined in various ways, most of which refer to working hours, the number of tasks to be done, the pressure of time, mental load, and physical load. In this study, workload consists of two dimensions, which are (a) the pace and amount of work and (b) the mental load (Van Veldhoven & Meijman, 1994). An imbalance of workload for a length of time can cause exhaustion and inefficacy in individuals, which may result in absenteeism, turnover intention, and tardiness (physical withdrawal behavior) (Rosse, 1988). Individual-level outcomes would thus affect organizational outcomes such as overall job performance, the image of the organization, and cost-effectiveness (Van den Hombergh et al., 2009).

The evidence of previous studies supports the notion that workload can impact stress and an employee's potential in their work. The Job Demands-Control model of Karasek (1979) and the JD-R model of Demerouti et al. (2001) demonstrate that workload has positive effects related to strain and job burnout. Consistently, a meta-analysis study (Alarcon, 2011) showed that job demands, including workload, have positive correlations with job burnout in which workload had the strongest correlation with emotional exhaustion, followed by cynicism and inefficacy.

Hypothesis 1: Workload is positively related to the (a) exhaustion, (b) cynicism and (c) inefficacy dimensions of job burnout.

Social Support in the Workplace as a Job Resource and Problem-focused Coping Strategy as a Personal Resource

In contrast to job demands, job resources are related to job burnout to a lesser extent in comparison (Demerouti et al., 2001). This may be explained by the fact that job resources follow a motivational pathway. They thus act as a buffer of the relationships between job demands and job burnout (Bakker & de Vries, 2020). In other words, job resources can potentially alleviate the impact that job demands such as workload have on job burnout.

Previous studies have shown that there are numerous resources associated with job burnout. These resources can be classified into job resources and personal resources. Job or organizational resources are job characteristics that motivate and help support individuals to achieve work goals. Among these job resources, support has a strong correlation with job burnout (Alarcon, 2011). The second type of resources, personal resources, are defined as self-beliefs that describe the extent to which an individual thinks he or she has the ability to have control over the work environment, such as the deadlines for completing work tasks (Hobfoll et al., 2003). Personal resources may include, for example, self-efficacy, optimism and coping strategies. In this study, it has been proposed that social support in the workplace and coping strategies are job resources that buffer the relationship between workload and job burnout.

With regard to job resources, social support has been defined as "the assistance and protection given to others, especially to individuals" (Langford et al., 1997). Social support in the workplace is an interpersonal transaction during work in which people give assistance to each other. Regarding the sources of social support in the workplace, many studies have shown that social support in the workplace usually depends on two dimensions, which are (a) relationships with colleagues and (b) relationships with supervisors. In recent research, social support in the workplace has been shown to be able to reduce, prevent, or buffer the negative effects of strain or job burnout (Beltrán, 2009; Halbesleben & Buckley, 2006; Mayo et al., 2012; Sloan et al., 2013). For example, Charoensukmongkol et al. (2016) found that colleagues' and supervisors' social support is negatively associated with all three dimensions of job burnout.

As a personal resource, coping is a cognitive and behavioral process that individuals use to manage the demands encountered (Lazarus & Folkman, 1984). When these demands are cognitively appraised to be greater than the available resources, individuals may use problem-focused and emotional-focused coping strategies to handle the situation. Comparing the two coping strategies, the problem-focused strategy has been found to be a more effective behavioral response when dealing with stressful situations (Ogoma, 2020). Problem-focused coping strategy is considered as a personal resource that includes the actions or thoughts to manage or overcome stressful situations by focusing on the problems and planning to solve the problems, while other coping strategies cause negative impacts on job performance (Frydenberg, 1997; Lazarus & Folkman, 1984; Lee & Lee, 2001). The two behaviors that define problem-focused coping strategy often include (a) planning and (b) active coping (Baumstarck et al., 2017).

Problem-focused coping strategy plays an essential role in the relationship between stress and

psychological outcomes. For example, an intervention aiming to enhance the use of problem-focused coping strategy among caregivers was found to be effective in reducing burdens (Ghane et al., 2016). It is expected that an employee's behavioral response that focuses on a problem would be a personal resource that diminishes the effect of the stressful demands of the workload on job burnout. Therefore, a moderation effect of the use of problem-focused coping strategy is proposed.

Hypothesis 2: Social support in the workplace moderates relationships between workload and (a) exhaustion, (b) cynicism, and (c) inefficacy of job burnout in which social support in the workplace buffers the positive relationships

Hypothesis 3: Problem-focused coping strategy moderates relationships between workload and (a) exhaustion, (b) cynicism, and (c) inefficacy of job burnout in which problem-focused coping strategy buffers the positive relationships.

The Interaction of Social Support in the Workplace and Problem-focused Coping Strategy on the Relationship Between Workload and Job Burnout

Despite a large number of studies examining job resources and job burnout, most research has examined only one type of job resources. An example of the studies that examine both resources is the study of Devereux et al. (2009), which tested the mediating and moderating effects of social support and coping strategy on job burnout. It was found that work demands interact with staff support and this interaction has an effect on the sense of personal accomplishment dimension of job burnout. Nonetheless, the interaction between job resources and personal resources was not examined in this study.

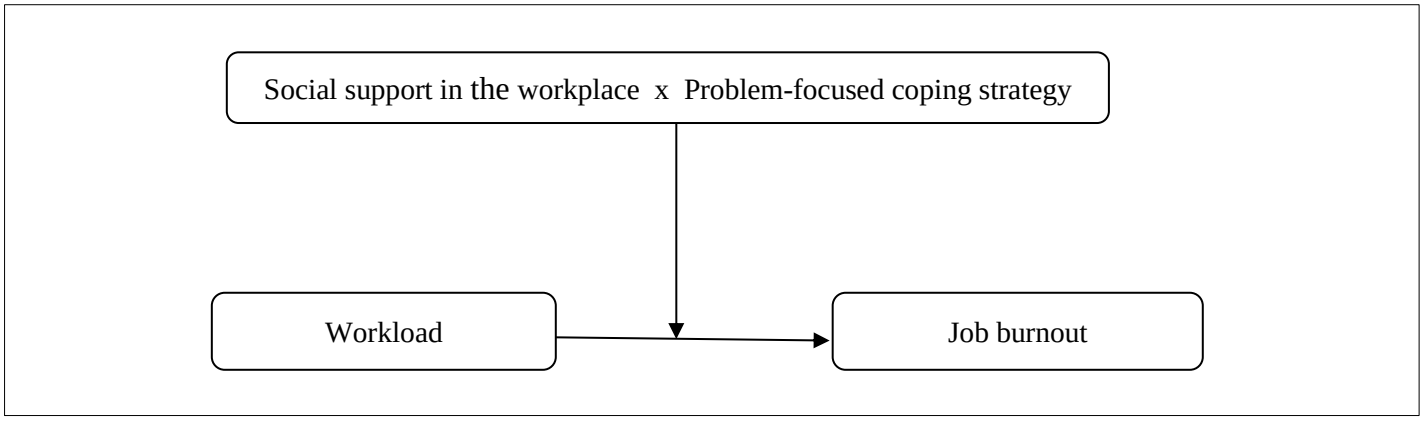
Since social support in the workplace and problem-focused coping strategy act as resources that employees can utilize, the interaction between these two resources should change how workload affects job burnout. According to the study of Van den Brande et al. (2016), individuals with problem-focused coping strategy would have adaptability in various situations that is better. Moreover, combined with social support in the workplace, problem-focused coping strategy may be more effective in buffering the relationship between workload and job burnout. Particularly, desirable outcomes such as a low level of job burnout may result from an interaction of a high level of social support in the workplace and a strong problem-focused coping strategy. Therefore, a three-way interaction between workload (job demand) and an interaction between social support in the workplace (a job resource) and the coping strategy (a personal resource) is proposed.

Hypothesis 4: A three-way interaction between workload, social support in the workplace, and problem-focused coping will predict job burnout outcomes, such that the positive relationship between workload and job burnout will be weaker when high social support in the workplace coping is combined with high (vs. low) problem-focused.

The figure 1 shows the conceptual framework of this study.

Figure 1

Conceptual Framework of the Study



Method

Participants and Procedure

Data were collected from civil servants working in the public sector with the least number of civil servants being at the top in Thailand between May and August 2020. The minimum sample size was 98 (calculated by G*power (Faul et al., 2009) based on the effect size of the study of Mauno et al. (2019), which had the same variables. The data consisted of 260 civil servants (84.14% completion rate) who completed an online survey posted on an organization's website portal. Participants completed the survey at their convenience, and their participation was provided on a voluntarily basis. Confidentiality and anonymity were ensured. An inclusion criterion was utilized to select the participants, which was civil servants who have been working for at least one year, as the study of Dimunová and Nagyová (2012) showed that employees with more than one year of working experience have significantly higher rates of job burnout. The mean age for the sample was 36.17 (SD = 8.15) years, the average tenure was 9.54 (SD = 8.43) years, and 56.03% were female. The study was approved by the Research Ethics Review Committee for Research Involving Human Subjects, Chulalongkorn University (ERC 059.1/63).

Measures

The questionnaire was presented in the Thai language and consisted of demographic questions and four measures. The measures were translated into Thai with the permission of the authors. To ensure the equivalence of meaning in both the English and Thai versions of the measures, the back-translation method (Brislin, 1980) was used. Specifically, the English versions of the measures were first translated into Thai by the first translator. The Thai versions were then translated back into English by the second translator. The translators were proficient in both languages. The original English versions and translated English versions were then compared for equivalency.

Job Burnout

Job burnout was measured with the 16-item Maslach Burnout Inventory – General Scale (MBI-GS) assessing exhaustion, cynicism, and inefficacy as a multidimensional construct (Maslach et al., 1997). This measure uses a 7-point Likert scale (ranging from 0 = "never" to 6 = "daily") to assess the frequency with which participants experienced each item within a year. Example items include "I feel fatigued when I get up in the morning and have to face another day on the job", "I've become more callous toward people since I took this job", and "I have accomplished many worthwhile things in this job" for exhaustion, cynicism and inefficacy, respectively. Cronbach's alpha coefficients were 0.94 for exhaustion, 0.89 for cynicism, and 0.90 for inefficacy.

Workload

Workload was assessed using the 18 items of the Questionnaire for the Experience and Evaluation of Work (QEEW) (Van Veldhoven & Meijman, 1994), which was developed based on the JD-R model. The 18-item measure consists of 11 items assessing the pace and amount of work and 7 items assessing the mental load of workload on a 4-point Likert scale (ranging from 1 = "always" to 4 = "never"). An example item is "Do you have to work extra hard in order to complete something?" Responses were averaged to form an overall workplace measure. Cronbach's alpha coefficient was 0.85.

Social Support in the Workplace

Social support in the workplace was measured with 18 items of the QEEW (Van Veldhoven & Meijman, 1994) assessing relationships with colleagues (9 items) and relationships with the supervisor (9 items). The items were measured on a 4-point Likert scale (ranging from 1 = "always" to 4 = "never"). Example items are "Can you count on your colleagues when you encounter difficulties in your work?" and "Have there been any unpleasant occurrences between you and your supervisor?" Responses were averaged to form an overall measure of social support in the workplace. Cronbach's alpha coefficient was 0.88.

Problem-focused Coping Strategy

Problem-focused coping strategy was measured with the 4-item Brief COPE scale (Carver, 1997). A 4-point Likert scale (ranging from 1 = "I haven't been doing this at all" to 4 = "I've been doing this a lot") was used to assess the extent to which they behave when encountering problems. An example item was "I've been taking action to try to make the situation better." Cronbach's alpha coefficient was 0.86.

Control Variables

This study included five control variables, which were (1) age, (2) rank, (3) length of time in the organization, (4) hours of work per week and (5) job satisfaction. Job satisfaction was measured with the item "Rate the satisfaction level of your job." The first four demographic variables have been found to be predictors of job burnout (Ahola et al., 2008; Keeton et al., 2007; Lasalvia et al., 2009; Novais et al., 2016; Śliwiński et al., 2014). For example, employees who work long hours per week are more likely to experience a higher level of job burnout. Job satisfaction was also controlled because meta-analytic findings showed that job satisfaction is an attitude that has the strongest correlation with the three dimensions of job burnout (ρ = -.39, - .51) (Alarcon, 2011).

Data Analysis.

Statistical analyses were performed using the SPSS software version 23. A hierarchical multiple regression analysis was used to test the four hypotheses separately on the three dimensions of job burnout. For each of the three analyses, the control variables were entered in Step 1, and then the main effects were entered in Step 2. The interaction terms testing the two moderators (i.e., social support in the workplace and problem-focused coping strategy) were entered in Step 3, and the three-way interaction term was entered in Step 4. All of the interaction terms were mean-centered (Aiken et al., 1991). To test for significant interaction terms, Dawson and Richter (2006) simple slope test and test for slope differences were used.

Results

First, in order to evaluate construct validity of the four measures, a confirmatory factor analysis was performed using the AMOS software version 22. Following Tabachnick and Fidell's (2001) recommendation, items with a factor loading less than .40 were deleted. Thus, six items of workload were deleted, resulting in a total of six items measuring workload. Factor loadings of the remaining items were between .43 and .84. Four items measuring social support in workplace were deleted. The remaining 14 items had factor loadings between .40 and .87. Items of job burnout and problem-focused coping strategy measures had factor loadings between .66 and .90 and between .70 and .88, respectively.

The descriptive statistics among variables are reported in Table 1. The results of the correlation testing show significantly negative correlations among social support in the workplace and problem-focused coping strategy and all three dimensions of job burnout (r ranged between -.16 and .49). Significantly positive correlations were found between workload and only two dimensions (emotional exhaustion and cynicism) of job burnout, but not between workload and the inefficacy dimension of job burnout. In addition, the control variables were significantly correlated with the outcome variables and were thus controlled in the subsequent analyses.

Next, to test the hypotheses, the results of the three regression analyses are summarized in Table 2. First, H_1 hypothesized that workload is positively related direct to job burnout. Over and above the controlling variables, workload was significantly and positively related direct to exhaustion (β =.33, t = 6.73, p < .00) and cynicism (β =.21, t = 4.17, p < .00) of job burnout. Thus, H_1 was partially supported.

The next two hypotheses postulated moderating effects. H_2 predicted social support in the workplace as a moderator of the relationship between workload and job burnout. As shown in Step 3 (Table 2), none of the interaction terms were significant, and H_2 was rejected. Then, H_3 predicted problem-focused coping strategy as the moderator of the relationship between workload and job burnout. Table 2 shows the relevant results in which the unstandardized beta coefficients report that there are statistically significant differences in the moderate relationship between workload and cynicism of job burnout (β = -.17, t = -3.37, p < .01). Figure 2 presents the simple slope plot of the significant moderating effect of problem-focused coping strategy on cynicism.

The final hypothesis tested the three-way interactions. H_4 hypothesized the three-way interactions between social support in the workplace, problem-focused coping strategy and workload on job burnout. The results of Step 4 (Table 2) showed a significant three-way interaction only on exhaustion (β = -.15, t = -2.49, p < .05) of job burnout, but not on cynicism and inefficacy of job burnout. To examine the direction of this significant interaction, the simple slope tests found three simple slopes significantly different from zero. Specifically, the relationship between workload and the exhaustion dimension of job burnout was significantly positive when social support in the

Table 1

Correlations Between all Independent and Dependent Variables in the Analysis

	Age	Rank	Tenure	Period	Job Sat	WL	SS	PF	BO_Ex	BO_Cy	BO_In
Age	-										
Rank	.68**	-									
Tenure	.87**	.69**	-								
Period	.02	.12	.03	-							
Job Sat	.07	-.00	.07	-.02	-						
WL	-.07	-.07	-.08	.27**	-.12	-					
SS	.14*	.17**	.14*	-.10	.39**	-.26**	-				
PF	.07	.22**	.10	.20**	.09	.06	.24**	-			
BO_Ex	-.20**	-.12	-.19**	.10	-.56**	.42**	-.43**	-.16*	-		
BO_Cy	-.19**	-.13*	-.18**	-.06	-.62**	.27**	-.42**	-.19**	.76**	-	
BO_In	-.21**	-.21**	-.21**	-.14*	-.29**	.01	-.41**	-.49**	.28**	.26**	-
M	36.17	-.49	9.54	44.70	3.34	2.96	3.17	3.17	3.25	2.82	2.89
SD	8.15	.87	8.43	7.86	.76	0.34	0.41	0.52	1.53	1.45	1.18

Bartlett's test of sphericity valued $\chi^2 = 1228.04$, df = 55, N = 260, $p = .000$, KMO = .73

Note. *$p < .05$, **$p < .01$, Age = age, Rank = rank, Tenure = tenure, Period = hours of work per week, Job Sat = job satisfaction, WL = workload, SS = social support in the workplace, PF = problem-focused coping strategy, BO_Ex = exhaustion of job burnout, BO_Cy = cynicism of job burnout, BO_In = inefficacy of job burnout.

workplace was high and problem-focused coping strategy was low (simple slope = 2.01, $t = 5.10$, $p < .00$), when social support in the workplace was low and problem-focused coping strategy was high (simple slope = 1.72, $t = 3.99$, $p < .00$), and when social support in the workplace and problem-focused coping strategy were both low (simple slope = 1.55, $t = 4.77$, $p < .00$). However, the relationship was not significantly different from zero when social support in the workplace and problem-focused coping strategy were both high (simple slope = .61, $t = 1.63$, $p = .10$).

In addition, the slope difference test was performed. Figure 3 presents the simple slope plot of the significant three-way interaction. It was found that the slope of high social support in the workplace and high problem-focused coping strategy was significantly different only from the slope of high social support in the workplace and low problem-focused coping strategy (slope difference = -1.40, $t = -2.63$, $p < .01$) and the slope of low social support in the workplace and high problem-focused coping strategy (slope difference = -1.11, $t = -2.12$, $p < .05$). Taken together, H_4 was partially supported.

Discussion

The main purpose of this study was to investigate the relationship between workload and job burnout while having social support in the workplace and problem-focused coping strategy as moderators among Thai civil servants. As a result, workload was found to positively related direct to the two dimensions of job burnout, namely (a) exhaustion and (b) cynicism but had no relationship

Table 2

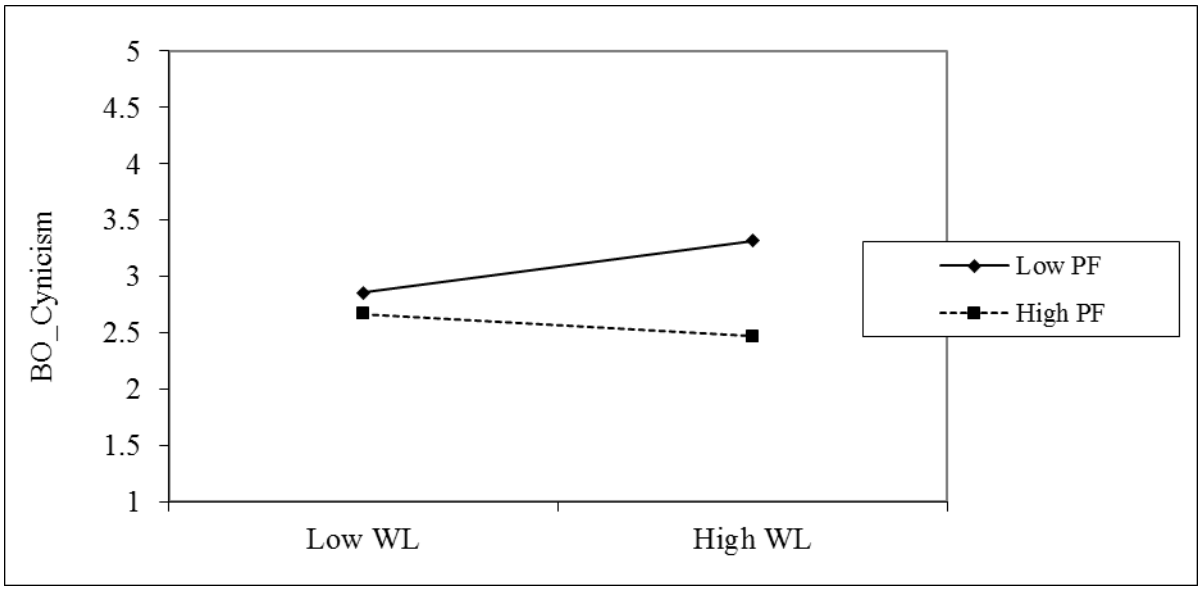
Three-Way Interactions Model Testing Relationships Among Workload, Social Support in the Workplace, and Problem-Focused Coping Strategy on Job Burnout

Variables	Exhaustion		Cynicism		Inefficacy	
	B(SE)	β	*B(SE)*	β	*B(SE)*	β
	Model 1		Model 2		Model 3	
Step 1						
Rank	-0.03(.13)	-.02	-0.06(.12)	-.04	-0.10(.12)	-.08
Age	-0.02(.02)	-.10	-0.01(.02)	-.06	0.01(.02)	.03
Length	-0.01(.02)	-.06	-0.01(.02)	-.07	-0.03(.02)	-.20
Period	0.02(.01)	.09	-0.01(.01)	-.07	-0.02(.01)	-.12*
Job Sat	-1.08(.11)	-.53***	-1.15(.10)	-.60***	-0.42(.09)	-.27***
R^2	.33		.40		.15	
F	24.48***		32.48***		8.86***	
Step 2						
WL	1.48(.22)	.33***	0.87(.21)	.21***	-0.15(.18)	-.04
SS	-0.51(.20)	-.14*	-0.53(.19)	-.15**	-0.74(.17)	-.26***
PF	-0.32(.15)	-.11*	-0.26(.14)	-.10	-0.88(.12)	-.39***
ΔR^2	.15		.08		.23	
ΔF	22.94***		12.58***		30.85***	
Step 3						
WL x SS	-0.38(.44)	-.04	-0.01(.41)	.00	-0.49(.37)	-.07
WL x PF	-0.58(.39)	-.08	-1.21(.36)	-.17**	0.27(.32)	.05
SS x PF	-0.46(.29)	-.08	-0.68(.27)	-.12*	0.31(.24)	.07
ΔR^2	.01		.03		.01	
ΔF	1.64		4.85**		1.15	
Step 4						
WL x SS x PF	-1.82(.73)	-.15*	0.06(.69)	.01	-0.33(.62)	-.04
ΔR^2	.01		.00		.00	
ΔF	6.18*		.01		.27	

Notes. *p < .05, **p < .01, ***p < .001; Rank = rank, Age = age, Length = length of time in the organization, Period = hours of working per week, Job Sat = job satisfaction, WL = workload, SS = social support in the workplace, PF = problem-focused coping strategy.

Figure 2

Problem-Focused Coping Strategy Moderate Relationships Between Workload and Cynicism of Job Burnout



with the other dimension, inefficacy. However, prior studies that apply the JD-R model to examine job burnout have primarily focused on an interaction between a job demand and a particular job resource (e.g. Van Woerkom et al., 2016). This study provided an empirical evidence of the buffering benefits of personal resources in addition to job resources (Xanthopoulou et al., 2007). Without taking workload into account, individuals with a high level of social support in the workplace and problem-focused coping strategy are likely to show lower levels of job burnout. However, the effects of social support and problem-focused coping strategy combined together could buffer the relationship between workload and the emotional exhaustion of job burnout more effectively.

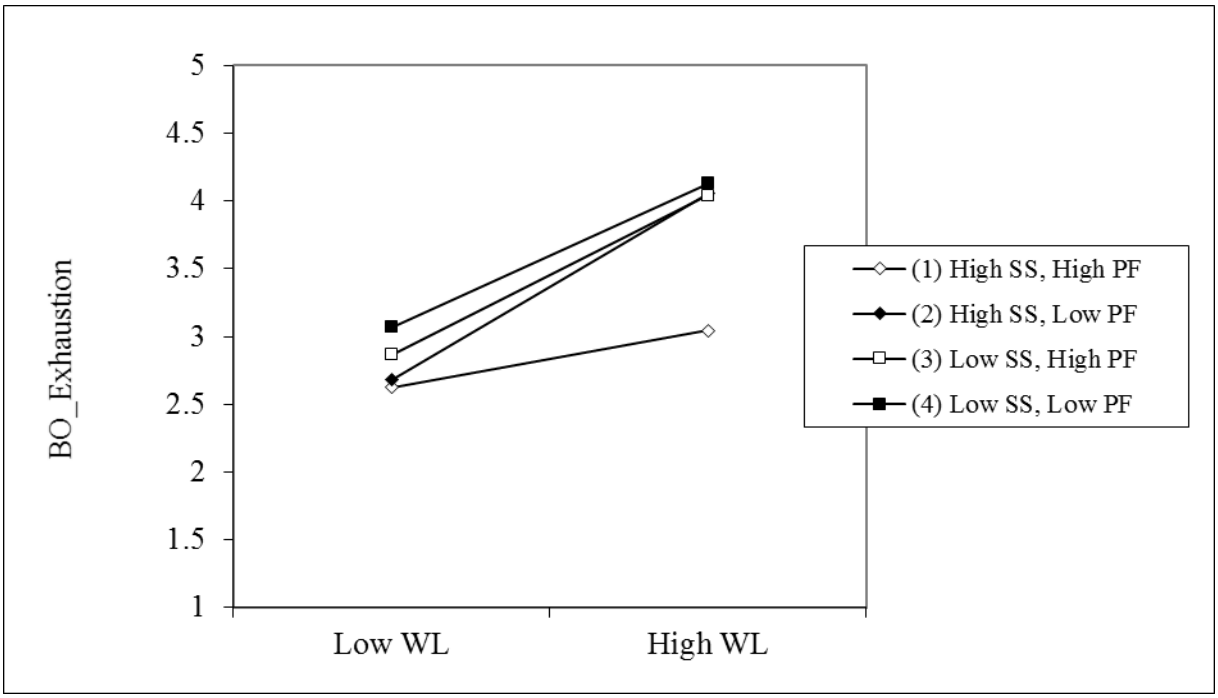
According to our first hypothesis, the results of this study demonstrate a positive significant relationship between workload and job burnout. This can explain that the level of an individual's amount of work and mental load is likely to result in an increased job burnout, especially regarding the (a) exhaustion and (b) cynicism dimensions. As previous studies have found, a high level of workload demands such as multitasking and time pressure can affect job burnout levels (Akca & Küçükoğlu, 2020; Watson et al., 2019; Xanthopoulou et al., 2007).

The second and third hypotheses were investigated through the moderating effect of social support in the workplace and problem-focused coping strategy on the relationships between workload and (a) exhaustion, (b) cynicism, and (c) inefficacy of job burnout. It was found that there is no statistically significant moderating effect of social support in the workplace on the relationships between workload and (a) exhaustion, (b) cynicism, and (c) inefficacy of job burnout. This is in contrast with previous studies that have found that the high level of workload could be reduced by effective social support in the workplace by valuing and evaluating employees' personal accomplishments (Himle et al., 1991; Janssen et al., 2004; Khan et al., 2019; Lee & Ashforth, 1996; Xanthopoulou et al., 2007). A non-significant result of social support in the workplace in this particular study may be explained by the unique work environments during the COVID-19 when the data were collected. Employees may not expect a high level of social support in the workplace as they work from home and work tasks may have been accomplished in a more independent manner. In addition, not only social support in the workplace could buffer the relationship between workload and job burnout but job burnout could also have an effect on social support in the workplace. Individuals who experience job burnout can have negative feelings that have an impact on interactions with their supervisors or colleagues, which weakens the relationships of social support in the workplace (Hombrados-Mendieta & Cosano-Rivas, 2013).

On the other hand, regarding problem-focused coping strategy, there was a statistically significant moderating effect of problem-focused coping

Figure 3

Three-Way Interactions Plot of Workload, Social Support in the Workplace, and Problem-Focused Coping Strategy on the Emotional Exhaustion Dimension of Job Burnout



strategy on the relationship between workload and the cynicism of job burnout. Cynicism, one of the dimensions of job burnout, is a negative feeling or attitude or a withdrawal from others. These results are in agreement with those of Yip et al. (2008) and Siu et al. (2006), who found that problem-focused coping strategy had a beneficial role in well-being and reduced strain in the workplace.

With regard to the final hypothesis that tested the three-way interaction, the study expected that social support in the workplace, problem-focused coping strategy, and workload have a three-way interactions effect on (a) exhaustion, (b) cynicism, and (c) inefficacy of job burnout. More specifically, social support in the workplace as a job resource and problem-focused coping strategy as a personal resource could buffer particular job demands (e.g., workload). The results demonstrate that the hypothesis was supported and are incongruent with previous studies that show that social support in the workplace as a job resource and problem-focused coping strategy as a personal resource each have a significant relationship with job burnout (Bermejo-Toro et al., 2016).

Generally, social support in the workplace and problem-focused coping strategy are known as the resources that can support well-being in stressful work-related situations. However, when each of the resources exist alone, it may not be sufficient in some conditions or environments to prevent employees who have a large amount of work and mental load to experience burnout, especially the emotional exhaustion component of job burnout. The findings of this study have demonstrated that incorporating both social support in the workplace and problem-focused coping strategy could possibly be more effective in reducing the relationship between workload and job burnout as shown in Figure 2. The results establish that enhancing social support in the workplace and problem-focused coping strategy, which is the aim of cognitive-behavioral interventions (Bakker & de Vries, 2020), could help the human resources in the government sector become more aware of the factors that cause job burnout in civil servants and prevent them from occurring.

Conclusion

The results of this study report the essential roles of social support in the workplace and problem-focused coping strategy as moderators of the relationship between workload and job burnout. It has been shown that the empowerment of social support in the workplace as a job resource and problem-focused coping strategy as a personal

resource may offer greater protection from the impacts of workload on job burnout. In conclusion, the findings of this study indicate that personal resources (e.g., problem-focused coping strategy) perform an essential role in the JD-R model.

However, the present study has limitations resulting from the Coronavirus pandemic (COVID-19) that may have affected the workplace's environment of participation and caused the sample size of this study to be small. Additionally, all the measures used in this study were exclusively based on self-reporting in which the participants could be biased and responded in a socially desirable way. The recommendation for further study is to collect data in multiple settings in both the public and private sectors in order to compare the generalizability of the findings. In addition, a longitudinal design is needed to demonstrate a causality that job demands and resources could have on job burnout.

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