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The Differential Impacts of Collective Psychological Ownership and Membership Identification on Work Burnout and Engagement

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The Differential Impacts of Collective Psychological Ownership and Membership Identification on Work Burnout and Engagement

ABSTRACT

Work burnout and engagement are big concerns among workers in social services profession. While the job demands-resources (JD-R) model has been a key perspective in explaining burnout and engagement, there are few studies on the psychological mechanism of the model. In particular, the role of collective psychological ownership (CPO) and membership identification (MI), emerging constructs in workplace wellbeing, are to be explored. The study aimed to explore the roles of CPO and MI in explaining work burnout and engagement in a JD-R model framework.

Through snowball and convenience sampling methods, an online self-report survey was conducted in 2016. Totally 761 full-time social service workers in Shenzhen and Guangdong Province, China completed the questionnaire. Bivariate and hierarchical multiple regression analyses were performed.

The results reveal the differential impacts of CPO and MI on burnout and engagement in the JD-R model framework: (1) Job resources and CPO contribute most additional R square to the models predicting work engagement; (2) Job resources and MI contribute most additional R square to the models predicting burnout; (3) CPO partially mediates the relationship between job resources and burnout; and (4) CPO partially mediates the relationship between job demands and work engagement.

In conclusion, CPO and MI appear to be distinct constructs with differential impacts on work burnout and engagement. Furthermore, CPO appears to have a significant role in the psychological mechanism of the JD-R model in explaining work burnout and engagement.

KEYWORDS

Collective psychological ownership; job demands resources model; work engagement; burnout; membership identification

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Introduction

Social service workers may gain tremendous job satisfaction from working with underprivileged people, but they often need to face high emotional demands because of intensive interpersonal interactions (Hamama, 2012; Kim, 2011; Travis, Lizano, & Mor Barak, 2016). The mission to help often comes with some unavoidable risks, such as putting social service workers in unsafe working situations and compromising their own health and dignity (Kim, Ji, & Kao, 2011; Kosny & Eakin, 2008). The well-being of social workers has attracted increasing research interest. Under the traditional symptom-focused paradigm, burnout has been the most prevalent topic in occupational well-being for decades (W.B. Schaufeli, Leiter, & Maslach, 2009). Burnout refers to a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals at work (Maslach, 1996).

In the past decade, active development of positive psychology and well-being at work have given rise to the concept of work engagement, a positive and fulfilling work-related state of mind, in occupational health psychology (Bakker & Leiter, 2010; Bakker, Schaufeli, Leiter, & Taris, 2008; Eldor, 2016). Studying work engagement among social service workers may give more answers to the question of why some social service workers work energetically even under high work demands. Previous studies have demonstrated a moderate degree of independence between positive and negative well-being (Huppert & Whittington, 2003). The absence of ill-health does not necessarily imply the presence of well-being among staff. The growing interest of researchers on work engagement signifies an important paradigm shift in occupational well-being studies.

Recently, researchers have shown an increasing interest in studying both burnout and engagement together. The job demand-resources (JD-R) model has been a dominant model to explain burnout and engagement (Eean R. Crawford, Jeffery A. LePine, & Bruce Louis Rich, 2010; Korunka, Kubicek, Schaufeli, & Hoonakker, 2009; Wilmar B Schaufeli & Bakker, 2004; Trépanier, Fernet, Austin, Forest, & Vallerand, 2014). *Job demands* refer to “those physical, social, or organizational aspects of the job that require sustained physical or mental effort and are therefore associated with certain psychological costs (for example, exhaustion) and include aspects such as workload, time pressure, and difficult physical environments” (Eean R. Crawford et al., 2010). *Job resources* are defined as “those aspects of the job that are functional in achieving work goals, stimulate personal growth and development, and reduce job demands and their associated physiological and psychological costs include aspects such as job control, opportunities for development, participation in decision making, task variety, feedback, and work social support” (Eean R. Crawford et al., 2010).

There are two processes in the JD-R model: the erosion/energetic process and the motivational process (Eean R. Crawford et al., 2010; Hakanen, Bakker, & Schaufeli, 2006; Lorente, Salanova, Martínez, & Vera, 2014; W. B. Schaufeli & Taris, 2014). In general, the erosion/energetic process suggests that job demands are positively related to burnout, and then lead to turnover intention, health complaint and poor job performance. The motivation process suggests that job resources are positively related to engagement and job performance, and negatively related to turnover intention and health complaints. A number of relationships in the model require testing, which are the relationship (1) between job resources and burnout, (2) between job demands and work engagement, and (3) between burnout and engagement (Eean R. Crawford et al., 2010).

The JD-R model is an overarching model and it may be applied to various occupational settings, regardless of the particular demands and resources involved (Bakker & Demerouti, 2007). The JD-R model is deemed to be applicable to social services organizations as well. Up till now very few empirical studies have investigated work burnout and engagement of social service workers with the JD-R model (Schwartz, 2007). An exception is a doctoral thesis submitted to Portland State University, which only concerned a specific group of social service workers -child welfare workers, in a specific department (Schwartz, 2007). In this study, the JD-R model was adopted to examine all the relationships among job demands, job resources, and burnout, and work engagement among social service workers, who are serving different service users at different organizations in Shenzhen and Guangdong Province, China.

Although the JD-R model (mainly about job demands related to burnout, and job resources related to work engagement) is widely used in occupational health studies, little is known about the psychological mechanisms involved in the processes (Fernet, Austin, Trépanier, & Dussault, 2013; Van den Broeck, Vansteenkiste, De Witte, & Lens, 2008). In the current study, collective psychological ownership (CPO), an emerging concept in industrial and organizational psychology (Pierce & Jussila, 2010; Su, 2017), was incorporated to the JD-R model in investigating work burnout and engagement. CPO is a group-level phenomenon regarding the psychological attachment shared among workers towards their organization. CPO has been revealed to have impacts on staff's well-being and organizational behaviors (Pierce & Jussila, 2010, 2011). Pierce defined CPO at a general level. According to him, CPO refers to the collectively held sense or feeling by group mates that this target of ownership is collectively ours (Pierce & Jussila, 2010). While we agree with Pierce that the sense of shared possessiveness/ ownership is the core meaning of CPO, we focus our study of CPO in organizational context. In this study, CPO is defined as the

sense shared by group-mates that they jointly own their organization. In our conceptualization, the target of CPO is the entity of the organization. A newly-developed scale to measure CPO was validated in organizational context in another study. The structure of CPO with one general factor and two specific factors was supported by bi-factor analysis (Su, 2017). The general factor of CPO is the shared possessiveness, while the two factors for CPO are shared decision-making and shared hardship endurance (Su, 2017). This study focused on investigating the differential roles of CPO in the JD-R model in explaining work burnout and engagement.

In this study, CPO was hypothesized as a mediator in the JD-R model framework in explaining staff's work burnout and engagement. Hierarchical multiple regressions were performed to evaluate the mediating properties of CPO. Conceptually, a mediator explains how and why an effect occurs. As a collective psychological status of staff, CPO may be a psychological mechanism through which job demands and job resources influence work burnout and engagement.

Membership identification (MI) is another emerging construct in occupational health. MI refers to the shared feeling that members in an organization identify themselves and their coworkers to be members of the organization. The key question asked in MI is "Do we feel sharing the identity of being a member of the organization?" which distinguishes it from the question asked in CPO, which is "Do we feel that we own the organization?" MI and CPO are related but distinctive concepts. MI is concerned with the perceived shared membership among co-workers while CPO focuses on the shared possessiveness/ownership of the organization. The collective sense of ownership implies the rights and responsibilities of an owner, while the membership only emphasizes the rights and responsibilities of a normal member. The relations between MI and CPO have not been rigorously investigated. The current study aims to evaluate the differential impacts of MI and CPO on burnout and engagement. MI appears to offer a group/team context, or a basic

level of bonding for the formation of CPO. As such MI may mediate the effects of CPO on work burnout and engagement.

Based on the research gap discussed above, the general research question asked in the current study is “What are the differential impacts of CPO and MI in the JD-R model framework in explaining burnout and work engagement among social service workers?” To answer this general question, some specific questions were also proposed in the study:

- a. What are the relationships among job demands, job resources, burnout, and work engagement in the JD-R model among the social service workers?
- b. What is the role of CPO in the JD-R model in explaining burnout?
- c. What is the role of CPO in the JD-R model in explaining work engagement?
- d. Is CPO a mediator in the two processes in the JD-R model?
- e. What is the role of MI in the JD-R model in explaining burnout?
- f. What is the role of MI in the JD-R model in explaining work engagement?

The study had several hypotheses. Higher job resources may help the workers feel more control over their job. The feeling of control is a root for CPO. And thus, job resources are hypothesized to be positively related to CPO. Higher job demands may jeopardize the feeling of control over their jobs, thus may lead to lower CPO (Hypothesis1). Those workers who perceive the organization as a possession they share with others, they should be more likely to invest themselves in their work. Thus they should be more engaged at work and endure less burned out (Hypothesis 2). CPO may be a psychological mechanism that the job demands/resources influence burnout/engagement. CPO is hypothesized to be a mediator between job demands/resources and burnout/engagement (Hypothesis 5). People working with more job resources are likely to be more engaged, and less burned out. Working under higher job demands will drive people to be more

burned out and less engaged. People who are highly engaged are more energetic, and thus less likely to be burned out (Hypotheses 3, 4, and 6). Those employees who identify themselves and their coworkers as members of the organizations are more likely to address themselves as owners of the organization because they are more psychologically connected to the organization and would be more likely to invest more for the organization (Hypothesis 7). The shared identity as members of the organization may mediate the influence of CPO on burnout and/or engagement (Hypothesis 8).

Hypothesis 1: Job resources are positively related to CPO (H1a); and Job demands are negatively related to CPO and (H1b).

Hypothesis 2: CPO is positively related to work engagement (H2a); and negatively related to burnout (H2b).

Hypothesis 3: Job demands are positively related to burnout (H3a); and negatively related to work engagement (H3b).

Hypothesis 4: Job resources are negatively related to burnout (H4a); and positively related to work engagement (H4b).

Hypothesis 5: CPO mediates the relationship between job resources and burnout (H5a) as well as the relationship between job resources and work engagement (H5b); CPO mediates the relationship between job demands and burnout (H5c) as well as the relationship between job demands and work engagement (H5d).

Hypothesis 6: Burnout is negatively related to work engagement (H6).

Hypothesis 7: MI is positively related to CPO (H7a); positively related to work engagement (H7b); negatively related to burnout (H7c); positively related to job resources (H7d); and negatively related to job demands (H7e).

Hypothesis 8: MI mediates the influence of CPO on burnout (H8a); and MI mediates the influence of CPO on engagement (H8b).

Research method

Participants and Procedure

A cross-sectional, online survey design was adopted. By means of convenience and snowball sampling method, the study was conducted between January and April, 2016. All participants in this study were full-time social service workers, mainly frontline social workers and their supervisors, and all levels of administrative staff, who work for social service organizations in Shenzhen and Guangdong Province, China. Participants were recruited using emails and phone calls requesting representatives of social service organizations to disseminate the invitation to their employees. We used a popular Chinese online survey website, Wenjuanxing, to post questionnaire. Totally 777 participants attempted to complete the questionnaire. After data screening, 761 cases were found to be valid.

Table 1 summarizes the demographic information of the participants, including gender, age group, educational level, religion, marital status, family economic status, hours of sleep per day, times for exercises per week; and job-related information, such as job position, organizational size, monthly salary, job tenure, turnover intent, professional qualification, service users, and hours of work per week.

<Please insert Table 1 here>

All participants were full-time workers of social services organization of varied size and service sector. Majority (71.6%) of the participants were women. Around 95% were under 35 years old. Over half (60%) of the participants had educational level of bachelor degree or above, 63.9% had social work training background, and 64.7% were working as frontline social workers. More than half (64.5%) of the participants were single. Around half (50.3%) of the participants expressed having turnover intent. More than half of the participants earned less than 4,000 RMB (1 US\$ is about 6.3 RMB) per month (61.5%). The mean of the participants' job tenure was around 2 years. The Mean for the family economic status of our participants was between neutral and quite well off (around 3.6 on a scale of 1-7). Regarding the general demographic information of the social worker population in China, most of the social workers are young. The average age of social workers in Shenzhen was reported to be 27 years old in 2014 and around 83% of the workers had educational level of bachelor degree or above (Shenzhen Social Work Association, 2014).

Measures

Burnout

The Maslach Burnout Inventory (MBI) was widely used in research on burnout among human services professionals, such as social service workers and nurses. The Chinese version validated by Ngai (1986) and Kay S.Y. (2007) (Cronbach's alpha = .822) was adopted in the current study. The scale comprises 3 dimensions and 18 items. The 3 dimensions are emotional exhaustion (items 1-3, 6, 11 and 12), depersonalization (items 5, 9, 10, 13, 17 and 18), and personal accomplishment (items 4, 7, 8, 14, 15, 16). All responses were collected on a five points Likert

scale from 5 (strongly disagree) to 1 (strongly agree). After recoding the reversed items, the composite score is obtained by summing up the scores of all 18 items.

Work engagement

The validated Chinese concise version of the Utrecht Work Engagement Scale (UWES-9) (Fong & Ng, 2012) (Cronbach's alpha = .942) was adopted in our research. This scale contains 9 items. Participants were asked to indicate on a scale from 0 (never) to 6 (every day) about how often they experienced the feelings at work.

Job resources

It is a self-report instrument comprising 10 items (Cronbach's alpha = .897). Sample items are "supervisors' support I receive," "staff training I receive," "financial resources of the organization," and "social network of the organization". Participants were asked to indicate on a scale from -3 (very inadequate) to 3 (very adequate) about the job resources of their current job.

Job demands

It is a self-report instrument comprising 10 items (Cronbach's alpha = .900). Sample items are "workload," "working hour demands," "organization's demands on my job performance," and "physical demands of my job". Participants were asked to indicate on a scale from -3 (very low) to 3 (very high) about the job demands of their current job.

Collective psychological ownership (CPO)

A scale measuring Collective Psychological Ownership (CPO) (Cronbach's alpha = .901) was developed and validated in our previous studies (Su, 2017). The scale consists of two specific factors of CPO, which are shared decision-making (SD) and shared hardship endurance (SH). SD

is measured by three items, which are “I am involved in decision making”, “My colleagues feel they are involved in decision making”, and “The organization engages its staff in decision making”. SH is measured by another three items, which are “I will choose to stay with the organization even in tough time”, “My colleagues will choose to stay with the organization even in tough time”, and “The organization is keen to keep staff even in tough time”. Responses were collected on a Likert-type scale of 1 = I hardly feel this way, 2 = I slightly feel this way, 3 = I feel this way, and 4 = I strongly feel this way. The total score of the six items is a composite score of CPO.

Membership identification (MI)

In our study, MI was measured by three items (Cronbach’s alpha=.901), which are “I am a member of the organization”, “My colleagues feel they are members of the organization”, and “The organization takes staff as its members”.

Statistical Analyses

First, factors (demographic variables and job-related information) that may influence work burnout and engagement were tested by T test, ANOVA and Bivariate correlation. Second, inter-correlations among job demands, job resources, burnout, work engagement, MI and CPO were tested. Third, hierarchical regression analyses were conducted for variables predicting work burnout and engagement. Finally, models of CPO as a mediator among relationships of job demand, job resources, work burnout, and engagement were tested.

Results

Correlates to Work Burnout and Engagement

Table 1 shows correlates to work burnout and engagement. Chi-square and ANOVA revealed that there was statistically significant difference in burnout scores for groups in the following variables: gender, turnover intent, job position, monthly salary. Post-hoc comparisons using turkey HSD tests indicated that the mean score of burnout for male was significantly higher than for female, frontline workers had higher scores than senior managers, the two groups with the lowest monthly salary (RMB4,000 or below and the group with salary of RMB4,001-5,000) had higher scores than the group with the highest salary level (RMB6,001 and above), and the group with turnover intent had higher scores than the group without turnover intent. Bivariate correlation analyses revealed significant negative associations between burnout and the following variables: family economic status, job tenure, and hours of sleep per day.

Whereas for work engagement, Chi-square and ANOVA revealed that there was statistically significant difference in work engagement scores for groups in the following variables: age group, religion, turnover intent, job position and monthly salary. Post-hoc comparisons using turkey HSD tests indicated that the mean score of work engagement for age group of 24 or below was significantly lower than for the three elder age groups (30-34; 35-39 and 40 or above), age group of 25-29 had a lower mean score than age group of 40 or above, and the mean score for the age group of 30-34 was lower than for the group of 40 or above. The mean score of work engagement for the group with Buddhism as their religion was significantly higher than for the group without any religion, that for the group of senior manager was higher than for the other lower job positions groups (frontline workers and middle managers), the group with the highest monthly salary level was higher than two lowest salary groups (RMB4,000 or below and RMB4,001-5,000), and the group without turnover intent was higher than the group with turnover intent. Bivariate correlation analyses revealed significant positive associations between work

engagement and the following variables: family economic status, job tenure, hours of work per week, and times for exercises per week.

Inter-Correlations among Job Demands, Job Resources, Burnout, Work Engagement, MI and CPO (See Table 2)

Hypothesis 1 and 2

Job resources were positively related to CPO; and Job demands were positively related to CPO and thus hypothesis H1a was supported but H1b was not. CPO was positively related to work engagement; and negatively related to burnout. Both Hypothesis H2a and H2b were supported.

Hypothesis 3, 4, and 6

Job demands were not significantly related to burnout; and positively related to work engagement. Hypothesis 3a and 3b were both rejected. Job resources were negatively related to burnout; and positively related to work engagement. Both H4a and 4b were supported. Burnout was negatively related to work engagement, so H6 was supported.

Hypothesis 7

MI was positively related to CPO; positively related to work engagement; negatively related to burnout; positively related to job resources; but positively related to job demands. Thus all H7's hypotheses except H7e were supported.

<Please insert Table 2 here>

Multiple Regression to Predict Burnout

Hierarchical multiple regression was used to assess the power of job demands, job resources, CPO and MI to predict levels of burnout. Controlling variables were demographic

information (gender, age group, marital status, family economic status) and job-related information (job tenure, job position, monthly salary, hours of work per week, and organizational size) that showed significant correlation with burnout in bivariate analyses. Analyses were conducted to ensure no violation of the assumptions of normality, linearity, multicollinearity and homoscedasticity. The variables for demographic information and job-related information mentioned above were entered at Step1, explaining 4.9% of the variance in burnout. Gender, family economic status and monthly salary were significant.

After entry of job demands at step 2, the total variance explained by the model as a whole was still 4.9%, which means that no additional R square was added. Gender, family economic status and monthly salary were still significant. In step 3, after entry of Job resources, the total variance explained by the model rose to 9.9%. Change in R square was 5% ($F = 41.228, p < .001$). Gender, age group, family economic status, monthly salary, and job resources were significant. In step 4, after entry of CPO, the total variance explained by the model rose to 10.8%. Change in R square was 0.9% ($F = 7.291, p < .001$). Gender, age group, family economic status, job resources, and CPO were significant.

In the final step, after entry of MI, the total variance explained by the model rose to 16.9%. Change in R square was 6.1% ($F = 55.132, p < .001$). In the final model, gender, monthly salary, job resources, and MI were still statistically significant. Job resources and MI were the variables which contributed more additional R square to the model to predict burnout. What worth noticing is that, in the final step, after entry of MI, the contribution of CPO in the model decreased and CPO became insignificant (Beta value changed from $-.111^{**}$ to $.051$). It seems that MI partially mediates the influence of CPO on burnout and Hypothesis 8a was supported.

<Please insert Table 3 here>

Multiple Regression to Predict Work Engagement

Hierarchical multiple regression was used to assess the ability of job demands, job resources, CPO and MI to predict levels of work engagement. Controlling variables were demographic information (gender, age group, marital status and family economic status) and job-related information (job tenure, job position, monthly salary, hours of work per week and organizational size) that showed significant correlation with work engagement in bivariate analyses. Analyses were conducted to ensure no violation of the assumptions of normality, linearity, multicollinearity and homoscedasticity. The variables of demographic information and job-related information mentioned above were entered at Step 1, explaining 8.1% of the variance in work engagement. Age group, family economic status and monthly salary were significant.

After entry of job demands at step 2, the total variance explained by the model rose to 10.8%. Change in R square was 2.7 ($F = 22.830, p < .01$). Age group, family economic status, monthly salary, and job demands were significant. In step 3, after entry of Job resources, the total variance explained by the whole model rose to 22.8%. Change in R square was 11.9% ($F = 115.896, p < .01$). Age group, monthly salary, job demands and job resources were significant. In step 4, after entry of CPO, the total variance explained by the model rose to 29.9%. Change in R square was 7.1% ($F = 75.870, p < .01$). Age group, job demands, job resources, and CPO were significant.

In the final step, after entry of MI, the total variance explained by the model rose to 31.8%. Change in R square was 1.9% ($F = 20.683, p < .01$). In the final model, age group, job demands, job resources, CPO, and MI were significant. Job resources and CPO were the variables which contributed more additional R square to the model to predict work engagement. MI partially mediated the effect of CPO on engagement since the contribution of CPO in the model decreased

after entry of MI (beta value changed from .318** to .228**). Therefore, Hypothesis 8b was also partially supported.

<Please insert Table 4 here>

CPO as a Mediator in the JD-R Model to Explain Work Burnout and Engagement

Regression analysis was used to test the mediator role of CPO, and the Sobel test was used to estimate the mediation effects. Results are summarized in Table 5. With regression analysis performed by SPSS, four steps were adopted for mediation effect testing. Step one: Performed simple regression X on Y, and noted the unstandardized beta, standard error, and standardized value; Step two: Performed simple regression X on M, and noted the unstandardized beta, standard error, and standardized value; Step three: Performed multiple regression X and M on Y, and noted the unstandardized beta, standard error and standardized value coefficient between M and Y; Step four: Same as step three but noted coefficient between X and Y. Table 5 shows the results for the four steps and the results of the Sobel tests on CPO's mediator role in four relationships in the JD-R model. Figure 1 shows the conceptual diagrams for CPO as a mediator in the four relationships.

<Please insert Figure 1 here>

According to the definition of mediation and referring to the decision tree (Figure 2) for evidence supporting different intervening effects, if a, b, and c are significant, results suggest a case of partial mediation; if a, b are significant but c is not significant, results suggest a case of full mediation; if a is significant but c is not significant, results suggest a case of indirect relationship instead of mediation (Mathieu & Taylor, 2006).

<Please insert Figure 2 here>

CPO mediates the relationship between job resources and work engagement

All a, b, and c were significant. However, the Sobel test results revealed that CPO did not mediate the relationship between job resources and work engagement.

CPO mediates the relationship between job resources and burnout

All a, b, and c were significant. CPO partially mediated the relationship between job resources and burnout (Sobel's $SE=.0166, p < .001$). The indirect effect was .0565, and the portion of variance change due to mediation was 27.9%.

CPO mediates the relationship between job demands and work engagement

All a, b, and c were significant. CPO partially mediated the relationship between job demands and work engagement (Sobel's $SE=.022, p < .05$). The indirect effect was .058, and the portion of variance change due to mediation was 17.9%.

CPO mediates the relationship between job demands and burnout

C was not significant but a and b were significant. The mediation role of CPO was not supported, though there could be indirect effect between job demands and burnout through CPO.

<Please insert Table 5 here>

To conclude, CPO partially mediated the relationship between job resources and burnout, and hypothesis 5a was supported. CPO did not mediate the relationship between job resources and work engagement, and hypothesis H5b was not supported. CPO did not mediate the relationship between job demands and burnout, and hypothesis H5c was rejected. CPO partially mediated the relationships between job demands and work engagement, and the hypothesis H5d was supported.

Discussion & Conclusion

The study aimed to explore the psychological mechanisms of the JD-R model in explaining work burnout and engagement. The JD-R model formed the basic structure for the theoretical framework, and the differential effects of both CPO and MI on work burnout and engagement were examined by multiple statistical analyses. This study has the following theoretical implications.

Theoretical Implications

First, this study contributed to the sparse knowledge on the relationship between work burnout and engagement, and the correlates of burnout and engagement

In this study, work burnout and engagement were shown to be two moderately correlated concepts ($r = -.526, p < .05$), which supported Shimazu and Schaufeli's (2008) opinions of work engagement as the antithesis rather than the polar opposite of burnout. Thus, to reduce burnout and increase work engagement among staff may require separated and specific interventions.

Chi-square and ANOVA tests revealed that there was statistically significant difference in burnout scores for groups in the following variables: gender, turnover intent, job position, and monthly salary. Bivariate correlation analyses revealed significant negative associations between burnout and the following variables: family economic status, job tenure, and hours of sleep per day. Whereas for work engagement, chi-square and ANOVA tests revealed that there was statistically significant difference in work engagement scores for groups in the following variables: age group, religion, turnover intent, job position and monthly salary. Bivariate correlation analyses revealed significant positive associations between work engagement and the following variables: family economic status, job tenure, hours of work per week, and times for exercises per week. Thus, theoretically, some plausible measures to decrease burnout among social service workers

are increasing salary and encouraging workers to sleep longer hours per day. Whereas theoretical plausible measures to increase work engagement among social service workers are increasing salary and encouraging workers to keep working out.

Second, this study extended our understanding of the unique four relationships in the job demands-resources model

This study revealed that job resources may prevent burnout. Job demands in this study did not have a significant relationship with burnout. Interestingly, job demands were positively related with work engagement.

The conclusion that job resources prevent burnout is consistent with some existing theories. The conservation of resources (COR) theory suggests that stress arises when resources are lost, and stress will lead to employees' burnout (Hobfoll & Freedy, 1993); sufficient resources can help employees meet work demands and thus protect them from burnout (Lee & Ashforth, 1996). As social work is a newly established profession in China, the resources of the profession are still at a relatively low level. Job resources are required for social workers to offer help to those in need. Without sufficient resources, social workers are more likely to feel stressed and thus tend to burn out. In China, more resources, including materials and immaterial resources, are in need to develop the social work profession.

Regarding the influence of job demands, here are some possible explanations on its positive correlation with work engagement and its non-significant correlation with burnout. A possible explanation is also the developmental stage of the social work profession in China. Under low job demands, especially low professional job demands, for example, job demands on professional knowledge, it is difficult for social workers to acquire professional recognition from the public. If social workers can hardly have opportunities to offer professional services, it would be difficult to

build up a good professional reputation. The public in China still tends to view social workers as volunteers, who are non-professional and replaceable. Most people in need will not seek help from social workers. Without social recognition, many social workers feel less motivated to invest more in the profession. In the special case of China, higher job demands can engage the social workers in an organization. This may partially explain why job demands were positively related to work engagement in our sample.

A second possible explanation for the influences of job demands may be due to the “nature” of job demands (Eean R Crawford, Jeffery A LePine, & Bruce Louis Rich, 2010; W. B. Schaufeli & Taris, 2014). Previous studies have showed ambiguous results for the influences of job demands on work engagement. In some cases, demands did not predict work engagement (Wilmar B Schaufeli & Bakker, 2004), while in some other cases, demands promoted work engagement (Wilmar B Schaufeli, Taris, & Van Rhenen, 2008). Some researchers proposed that job demands should be separated into two categories: challenge and hindrance demands (Eean R Crawford et al., 2010). Challenge demands refer to those job demands that are appraised as positive demands that have the potential to promote mastery, personal growth, or future gains, such as high workload, time pressure, and high responsibilities (Eean R Crawford et al., 2010). According to Crawford, people take the challenge demands as opportunities to learn, and to be rewarded (Eean R Crawford et al., 2010). Hindrance demands refer to those job demands that are appraised as negative demands that have the potential to hinder a person’s growth, learning and goal achievement, such as role-related conflicts, hassles, or organizational politics (Eean R Crawford et al., 2010). According to Crawford, workers tend to feel frustrated under high hindrance demands, and thus they are less likely to devote energy to their work goals since they don't believe that they can achieve their goals (Eean R Crawford et al., 2010). This theory may explain why job demands positively relate to

work engagement if these are challenge and positive demands.

However, it is quite subjective to judge which job demands are positive and which are negative for employees. Schaufeli proposed another suggestion that positive job demands should be included in the job resources (W. B. Schaufeli & Taris, 2014). This solution might be subjective as well. Job demands refer to those job characteristics that require efforts, the so-called challenge demands such as workload and hours of work, do require workers' extra efforts, though they might view them as opportunities instead of obstacles. In summary, this dichotomous approach to distinguishing job demands requires further discussions.

Here is another explanation for this result. The influence of job demands on work engagement may have a cut-off point. There may exist a cut-off point, below which, job demands would lead to an increase of work engagement; and above which, excessive job demands would lead to a decrease of work engagement. A suitable amount of job demands may motivate people to learn, pursue goals, and be rewarded. When job demands increase to a certain level, people may realize that they can never achieve their goal, so what they would get is not reward but frustration; then eventually they might give up their passion to achieve. However, this explanation also requires empirical evidence and further investigation.

Third, this study examined the impact of job demands, job resources, CPO, and MI on work burnout and engagement

Hierarchical regression analyses for work burnout and engagement step by step show the R square changes due to job demands, job resource, and CPO. Job resources and MI are the variables which contribute more additional R square to the model to predict burnout, while job resources and CPO are the variables which contribute more additional R square to the model to predict work engagement. It seems that to prevent burnout, providing more job resources and increasing their MI are the plausible direction. Whereas to foster work engagement, providing more job resources and improving staff CPO are the plausible direction. Job resources can help

workers to solve problems at work and achieve their work goals, thus it is reasonable that job resources are in need to decrease burnout and to increase engagement. MI is concerned with the perceived shared membership among co-workers while CPO focuses on the shared possessiveness/ownership of the organization. MI may help the workers to identify their rights as a member, thus they would seek for help from their coworkers when in need. Thus MI may be more effective in preventing burnout. Identifying oneself as an owner of the organization should be more effective in engaging the workers since people would be more willing to invest in their possessions. This may partially explain the mediating role of CPO in explaining work engagement.

Forth, this is the first quantitative study to establish the link between CPO and the JD-R model. And it is another attempt to combine the symptom-oriented approach and the positive-oriented diagram concerning staff's well-being in a single study.

CPO was hypothesized to be a mediator in the JD-R model. The results suggested that CPO partially mediated the relationship between job demands and work engagement, and the relationship between job resources and burnout. CPO may be a psychological mechanism in the job demands-resources model to predict work burnout and engagement. In other words, CPO may be the way through which that job demands and resources affect work burnout and engagement.

Finally, efforts have been made to distinguish the impact of CPO and MI on work burnout and engagement

In this study, we found that CPO and MI are moderately correlated with each other; Both MI and CPO were positively related to job demands and resource; Both MI and CPO were negatively related to burnout and positively related to work engagement. In Regression analysis, more variance of burnout was explained by MI than by CPO (6.1% by MI versus .9% by CPO). On the other hand, more variance of work engagement was explained more by CPO than by MI (7.1% by CPO versus 1.9% by MI). What is worth of noticing, MI partially mediates the

relationship between CPO and burnout and the relationship between CPO and engagement, which imply that MI may be the mechanism through which that CPO impact work burnout and engagement. The differential effects of CPO and MI may have significant implications to interventions for reducing burnout and enhancing work engagement. Future research is suggested to distinguish their effects on staff's organizational behaviors or occupational well-being.

Conclusions

In conclusion, this study extended our understanding of the four relationships in the JD-R model and investigated the differential impacts of CPO and MI on work burnout and engagement in the JD-R model framework. In consistent with most previous findings, in this study, job resources fostered work engagement and prevent burnout. On the other hand, in contrary to most previous findings, in this study, job demands fostered work engagement, but had no significant influence on burnout. Future studies to investigate the four relationships in the JD-R model in various occupations are required. The results of this study also showed that CPO and MI appear to be distinct constructs with differential impacts on work burnout and engagement. Furthermore, CPO appears to have a significant role as a partial mediator of the JD-R model in explaining work burnout and engagement.

The current study has a number of limitations. First, all the measurements of study variables were based on self-report measures. Social service workers reported on their own burnout, work engagement, their perceptions of job-demands and job- resources, MI and CPO. There may have been recall and social desirability biases. Second, snowball and convenience sampling method was adopted and the study sample was not a representative one. Generalization of the results is therefore compromised. Third, we used only cross-sectional data to examine presumed relationships. The causal relationships should be further evaluated by longitudinal studies. Forth,

all participants of the current study were from nonprofit organizations. Therefore the transferability of the findings to the commercial and governmental sectors is uncertain and needs to be investigated in future studies.

Table 1. Descriptive statistics, and correlates to burnout, work engagement, and CPO
(*N*=761)

Predictor	Descriptive Sta. M (SD) or N (%)	Burnout	Engagement
Gender		<i>t</i> (759) = 2.477*	<i>t</i> (759) = .510
Male	216 (28.4)	47.48 (7.093)	30.15 (9.799)
Female	545 (71.6)	45.99 (7.661)	29.77 (9.197)
Age group		F (4,756) = 2.153	F (4,756) = 8.586***
24 or below	189 (24.8)	47.25 (6.942)	28.27 (8.807)
25-29	429 (56.4)	46.39 (7.434)	29.61 (9.282)
30-34	111 (14.6)	46.00 (8.567)	31.44 (9.265)
35-39	17 (2.2)	43.00 (6.792)	34.88 (9.506)
40 or above	5 (0.7)	43.40 (8.773)	40.47 (10.162)
Education level		F (3,756) = .711	F (3,746) = 1.539
Secondary school or below	18 (2.4)	44.44 (7.846)	32.44 (10.343)
Associate degree	213 (28)	46.51 (7.412)	30.57 (9.653)
Bachelor	460 (60.4)	46.53 (7.390)	29.24 (9.025)
Master or above	59 (7.8)	45.56 (8.985)	30.14 (10.212)
Religion		F (4,756) = 1.231	F (3,757) = 3.345*
None	667 (87.6)	46.60 (7.391)	29.58 (9.155)
Catholic or Christian	6 (0.8)	45.45 (9.136)	29.38 (10.861)
Buddhism	51 (6.7)	44.45 (8.051)	33.84 (10.659)
Others	14 (1.8)	46.71 (8.250)	30.50 (8.812)
Marital status		F (2,758) = 1.274	F (2,758) = 2.226
Single or unmarried	491 (64.5)	46.71 (7.442)	29.35 (9.086)
Married or cohabiting	266 (35)	45.83 (7.698)	30.85 (9.846)
Separated or widowed	4 (0.5)	48.00 (5.888)	29.50 (7.188)
Turnover intent		<i>t</i> (759) = -9.673**	<i>t</i> (759) = 9.382**
Yes	383 (50.3)	48.89 (6.911)	26.88 (9.026)
No	378 (49.7)	43.90 (7.304)	32.92 (8.715)
Professional qualification		F (4,756) = .668	F (4,756) = .555
Social work	486 (63.9)	46.48 (7.503)	29.91 (9.126)
Occupational therapy	4 (0.5)	45.00 (5.354)	32.25 (5.737)
Physiotherapy	1 (0.1)	56.00 (.)	17.00 (-)

Business management	35 (4.6)	47.34 (6.637)	30.23 (9.849)
Others	235 (30.9)	46.12 (7.748)	29.78 (9.850)
Service users		F (6,754) = .850	F (6,754) = .380
Teenagers or children	163 (21.4)	45.54 (7.590)	30.07 (9.497)
The elderly	165 (21.7)	46.53 (6.701)	30.53 (9.506)
People with disabilities	36 (4.7)	46.36 (6.863)	30.67 (8.356)
Ex-mentally ill persons	21 (2.8)	45.81 (6.809)	30.05 (8.464)
Families	127 (16.7)	46.38 (7.237)	29.15 (8.697)
Students	14 (1.8)	44.71 (10.695)	30.43 (9.501)
Others	235 (30.9)	47.11 (8.123)	29.51 (9.801)
Organizational size		F (3,757) = 1.087	F (3,757) = 1.455
Fewer than 20	52 (6.8)	45.79 (7.840)	30.69 (9.656)
20-49	97 (12.7)	47.61 (8.665)	28.47 (9.909)
50-99	100 (13.1)	46.62 (7.381)	28.94 (10.828)
100 or above	512 (67.3)	46.21 (7.292)	30.24 (8.904)
Job position		F (3,757) = 4.064**	F (3,757) = 9.470**
Frontline workers	492 (64.7)	46.96 (7.227)	28.75 (9.295)
Middle manger	187 (24.6)	45.65 (8.110)	31.58 (9.059)
Senior manager	33 (4.3)	42.82 (7.947)	35.94 (8.344)
Admin assistant	49 (6.4)	46.27 (7.225)	30.63 (9.528)
Monthly salary (RMB)		F (3,757) = 5.935**	F (3,757) = 10.094***
4,000 or below	468 (61.5)	46.69 (7.042)	28.94 (9.136)
4,001-5,000	195 (25.6)	46.95 (8.263)	30.02 (9.623)
5,001-6,000	52 (6.8)	45.69 (6.972)	32.17 (7.861)
6,001 and above	15 (2.0)	42.07 (8.447)	36.26 (9.464)
Family economic status	3.6 (1.1)	.137**	.119**
Job tenure	2.06 (1.86)	-.078*	.119**
Hours of work per week	41.03 (7.96)	-.017	.119**
Times for exercises per week	1.5 (1.5)	-.047	.178**
Hours of sleep per day	7.2 (9.1)	-.096**	.044

Note. * $p < .05$; ** $p < .01$; *** $p < .001$

Table 2. Reliabilities, and inter-correlations among the study variables (N=761)

Predictor	Reliability	Job demands	Job resources	Burnout	Engagement	MI	CPO
	Cronbach's Alpha	<i>ANOVA or Correlation</i>					
Job demands	.900	1					
Job resources	.897	.108**	1				
Burnout	.822	-.012	-.233**	1			
Engagement	.942	.226**	.374**	-.526**	1		
MI	.866	.080*	.429**	-.366**	.423**	1	
CPO	.901	.094**	.463**	-.217**	.447**	.598**	1

Note. MI refers to membership identification; CPO refers to collective psychological ownership; * $p < .05$; ** $p < .01$; *** $p < .001$

Table 3. Summary of Hierarchical Regression Analysis for Variables Predicting Burnout**(N =761)**

Predictor	Burnout				
	Model 1	Model 2	Model 3	Model4	Model5
Gender	-.111**	-.112**	-.122**	-.124**	-.103**
Age group	-.076	-.007	-.092**	-.088**	-.064
Marital status	.014	.014	.009	.001	.000
Family economic status	-.119**	-.118**	-.078**	-.074**	-.056
Job tenure	-.008	-.009	-.008	-.005	.001
Job position	-.030	-.029	-.019	-.020	-.011
Monthly salary	-.096**	-.099**	-.107**	-.083	-.093**
Hours of work per week	.009	.004	.003	.009	.002
Organizational size	-.037	-.037	-.014	-.027	-.022
Job demands		.021	.050	.046	.050
Job resources			-.230**	-.178**	-.118**
CPO				-.111**	.051
MI					-.320**
R ²	.049	.049	.099	.108	.169
Δ R ²	NA	.000	.050	.009	.061
F for change in R ²	4.298***	.293	41.228***	7.291**	55.132**

Note. NA = not applicable; * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 4. Summary of Hierarchical Regression Analysis for Variables Predicting Work Engagement ($N=761$)

Predictor	Work engagement				
	Model 1	Model 2	Model 3	Model 4	Model 5
Gender	.024	.018	.034	.037	.026
Age group	.165**	.151**	.173**	.161**	.148**
Marital status	-.039	-.036	-.028	-.007	-.006
Family economic status	.094**	.099**	.036	.023	.014
Job tenure	-.007	-.016	-.017	-.027	-.030
Job position	.063	.068	.052	.054	.049
Monthly salary	.114**	.089**	.100**	.033	.038
Work hours per week	.068	.025	.027	.009	.013
Organizational size	.053	.052	.016	.053	.051
Job demands		.176**	.131**	.139**	.138**
Job resources			.356**	.209**	.176**
CPO				.318**	.228**
MI					.177**
R ²	.081	.108	.228	.299	.318
ΔR^2	NA	.027	.119	.071	.019
<i>F</i> for change in R ²	7.382**	22.830**	115.896**	75.870**	20.683**

Note. NA = not applicable; * $p < .05$; ** $p < .01$; *** $p < .001$.

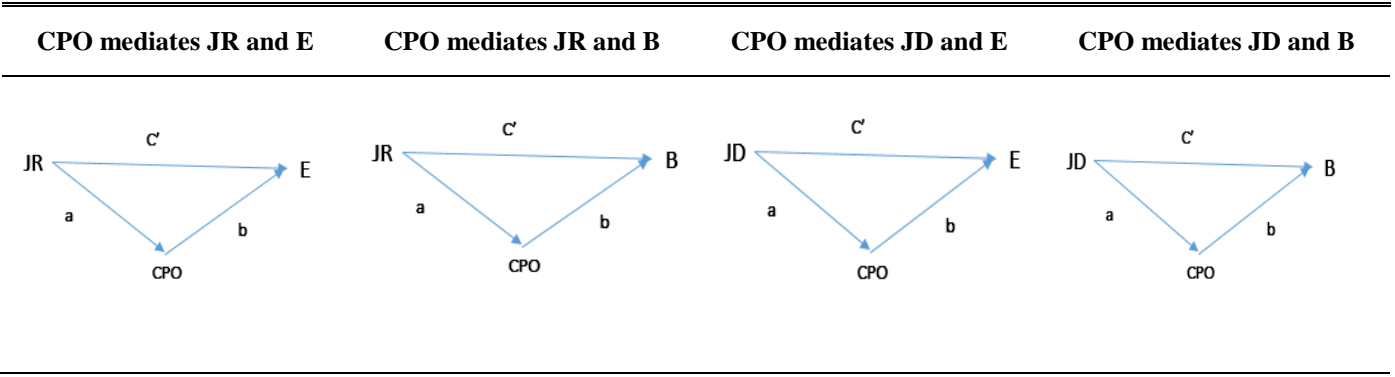


Figure 1. Conceptual diagram for CPO as a mediator in the four relationships of the JD-R model

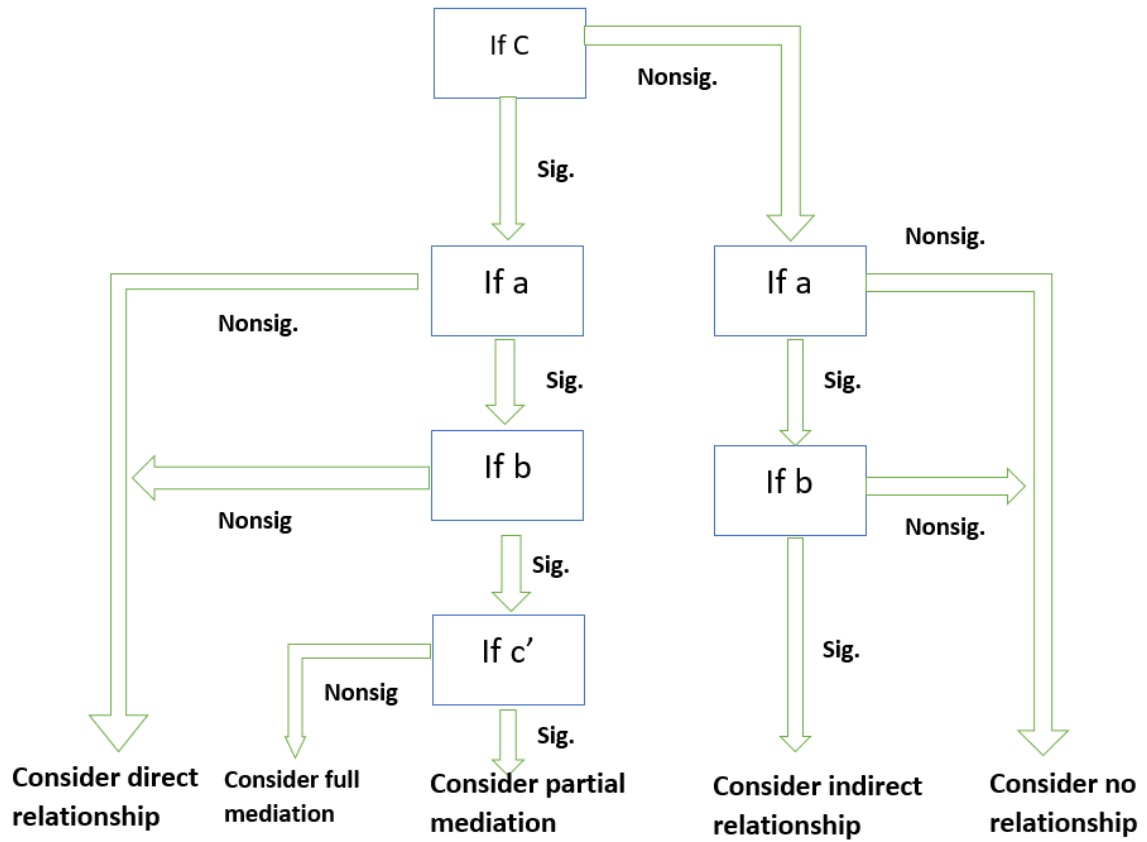


Figure 2. Decision tree for evidence supporting different intervening effects (Mathieu & Taylor, 2006)

Table 5. Summary of the Sobel test results on CPO as a mediator to predict burnout and work engagement (N=761)

	CPO mediates JR and E				CPO mediates JR and B				CPO mediates JD and E				CPO mediates JD and B (a)
Regression analysis	Beta	Std. Error	Std. Beta	Sig.	Beta	Std. Error	Std. Beta	Sig.	Beta	Std. Error	Std. Beta	Sig.	NA
c	0.407	0.037	0.374	0.000	-0.204	0.031	-0.233	0.000	0.324	0.051	0.226	0.000	NA
a	0.227	0.016	0.463	0.000	0.227	0.016	0.463	0.000	0.061	0.023	0.094	0.000	NA
b	0.776	0.08	0.349	0.000	-0.249	0.071	-0.139	0.000	0.955	0.071	0.43	0.000	NA
c'	0.231	0.039	0.212	0.000	-0.147	0.035	-0.168	0.000	0.266	0.046	0.185	0.000	NA
The Sobel test results													
Std. Error	0.0219987				.01660211				.02238792				NA
Test Statistic	8.00738346				-3.40456794				2.60207336				NA
p-value	NA (b)				.00066269				.0092662				NA
Portion due to mediation	NA				0.279				.179				NA
Conclusion	No mediation effects				Partial mediation				Partial mediation				No mediation effects

Note. a. The correlation between JD and B was non-significant in this study, thus we cannot test the mediation effect of CPO on the relationship between JD and B; b. failed to calculate the *p*-value; Beta refers to the unstandardized beta; Std. Beta refers to the standardized value; Std. Error refers to the standard error; Sig. refers to the *p* value. JD refers to job demands; JR refers to job resources; B refers to burnout, E refers to work engagement.

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