The Impact of Job Demands and Resources on Occupational Well-being, Job Engagement, and Turnover Intention: The Mediating Role of Occupational Well-being

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Abstract
This study investigated the relationships between obstructive job demands, challenging job demands, job resources, occupational well-being, job engagement, and turnover intention among employees in the service industry. The study utilized a sample of 439 employees from various service industries in China, and data was collected through self-report questionnaires. Structural equation modeling was used to analyze the relationships between the variables.

The results of the study showed that obstructive job demands had a significant negative effect on occupational well-being and job engagement, and a significant positive effect on turnover intention. In contrast, challenging job demands and job resources had a significant positive effect on occupational well-being and job engagement, and a significant negative effect on turnover intention. Additionally, occupational well-being had a significant positive effect on job engagement and a significant negative effect on turnover intention.

The study contributes to the existing literature by providing empirical evidence on the relationships between job demands, job resources, occupational well-being, job engagement, and turnover intention among service industry employees in China. The findings of this study have practical implications for service industry managers and policymakers who seek to enhance employee well-being, engagement, and retention.

However, the study has limitations, including the use of a cross-sectional design, self-report measures, and a sample from only one country and industry. Future research should use longitudinal designs, objective measures, and diverse samples to overcome these limitations and provide a more comprehensive understanding of the relationships between job demands, job resources, occupational well-being, job engagement, and turnover intention.
understanding of the relationships among the variables in different contexts.

Keywords: job demands, job resources, occupational well-being, job engagement, turnover intention, mediation, structural equation modeling.

Introduction

In recent years, there has been a growing interest in the relationship between occupational well-being, psychological capital, job engagement, and turnover intention among college teachers. Occupational well-being refers to a continuous experience of happiness gained from having one's needs met in the work process, having one's professional aspirations realized, and being able to realize one's potential and achieve one's own harmonious development (Van Horn et al., 2004). Meanwhile, psychological capital is a positive psychological state characterized by individual resources and capacities that are beneficial for overcoming difficulties and challenges (Luthans & Youssef, 2007; Youssef & Luthans, 2007). Job engagement is a positive state of mind characterized by vigor, dedication, and absorption in one's work (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002), while turnover intention refers to an individual's intention to leave an organization (Mobley, Horner, & Hollingsworth, 1978).

Although there have been studies on well-being and life satisfaction among working people in various fields, these studies often report simple correlational results and fail to examine the nature and context of work (Erdogan et al., 2012). Studies on well-being at work or employee well-being have only recently begun to be researched in the field of human resources and organizational behavior (Baek-Kyoo Joo, 2017).

Studies have suggested that occupational well-being can be deemed as considerable barriers for college teachers in coping with turnover intention and enhancing job engagement (Zelenski et al., 2008). Furthermore, psychological capital has been identified as a unique and important resource that can help buffer the negative impacts of stress, reduce turnover, and improve job engagement (Luthans & Youssef, 2007).

The current research aims to investigate the relationship between psychological capital, occupational well-being, job engagement, and turnover intention among Chinese college teachers. Specifically, the study aims to explore the influential factors affecting the occupational well-being of Chinese college teachers and the role played by psychological capital. It also aims to examine the direct effect of occupational well-being on job engagement and turnover intention and the mediating role of occupational well-being on the relationship
between job demands, job resources, and job engagement and turnover intention.

To achieve the research objectives, the study employs the Job Demands-resources theory (JD-R theory) and the stimulus-organism-response model (SOR model) as a theoretical anchor to develop hypotheses. JD-R theory explains and understands the processes leading to job engagement and turnover intention by categorizing working conditions as job demands and job resources. Meanwhile, the SOR model explains how environmental stimuli can influence human emotions, cognition, and reactions. The Hierarchy of needs theory provides the basis and helps to define the variables for this study.

The study will focus on ordinary institutions of higher learning in China, mainly undergraduate universities. The research participants will be college teachers who implement higher education at undergraduate and postgraduate levels.

The research questions are as follows:

1. To explore the role of psychological capital and the relationship between obstructive job demands, challenging job demands, job resources, and occupational well-being among Chinese college teachers.

2. To explore the variables contributing to job engagement and turnover intention, such as obstructive job demands, challenging job demands, and job resources, among Chinese college teachers.

3. To explore the mediating roles of occupational well-being on obstructive job demands, challenging job demands, job engagement, and turnover intention among Chinese college teachers.

Despite the growing recognition of occupational well-being as a significant factor that influences job engagement and turnover intention, empirical studies on well-being in the workplace are still limited, and even fewer studies have explored the role of psychological capital as a moderating variable in the relationship between occupational well-being and job engagement/turnover intention. Therefore, this study aims to investigate the effects of occupational well-being and psychological capital on job engagement and turnover intention among Chinese college teachers, with a focus on exploring the mediating and moderating roles of occupational well-being and psychological capital.

The Job Demands-resources (JD-R) theory and the stimulus-organism-response (SOR) model are the theoretical frameworks used to develop hypotheses in this study. According to the JD-R theory, working conditions are categorized as job demands and job resources, where job demands refer to the aspects of a job that require physical and psychological costs, and job resources refer to those aspects that may reduce job demands and associated physiological and psychological
costs. Empirical studies have confirmed that job demands are primarily correlated with turnover intention, whereas job resources are primarily related to job engagement. The SOR model suggests that environmental stimuli can influence human emotions and cognition and, in turn, individual reactions to these stimuli.

This study's research questions focus on exploring the role of psychological capital and the relationships between obstructive job demands, challenging job demands, job resources, occupational well-being, job engagement, and turnover intention among Chinese college teachers. The study aims to analyze the effects of obstructive job demands, challenging job demands, and job resources on job engagement and turnover intention, as well as the mediating effect of occupational well-being on these relationships. Furthermore, the moderating effect of psychological capital on the relationship between obstructive job demands, challenging job demands, job resources, and occupational well-being is also analyzed.

The significance of this study lies in its contributions to expanding the scope of research on occupational well-being, exploring the role of psychological capital, and enhancing the understanding of the factors that contribute to job engagement and turnover intention among Chinese college teachers. The study's theoretical framework, based on the SOR theory, combines the JD-R theory and expands the theoretical model's application form, making it an innovative study. The findings of this study can contribute to enhancing college teachers' occupational well-being, reducing job burnout, increasing job engagement, and lowering the turnover rate. Additionally, the study's managerial implications can help university managers enhance teachers' occupational well-being by controlling job demands and managing job resources, ultimately promoting job engagement and reducing turnover intention.

In conclusion, this study aims to investigate the role of psychological capital and the relationship between occupational well-being, job engagement, and turnover intention among Chinese college teachers. The study's theoretical framework and research questions focus on exploring the relationships between job demands, job resources, occupational well-being, psychological capital, job engagement, and turnover intention. The study's findings can provide valuable insights into enhancing college teachers' occupational well-being and improving job engagement and turnover intention. Additionally, the study's managerial implications can help university managers develop strategies to promote teachers' occupational well-being and job engagement while reducing their turnover intention.
Literature review

The job engagement of employees and turnover intention have been extensively researched in various fields. This literature review focuses on the research regarding job engagement and turnover intention among teachers. The review begins with the definition of job engagement and turnover intention, followed by the measurement scales of job engagement and turnover intention. The review further explores the factors that impact job engagement and turnover intention among teachers, including individual factors, job factors, and environmental factors.

Job Engagement

Definition of Job Engagement

Job engagement refers to a desirable condition that has an organizational purpose and connotes engagement, commitment, passion, enthusiasm, focused effort, and positive energy (Erickson, 2005; Macey & Schneider, 2008). Engaged employees are enthusiastic, dedicated, and psychologically involved, and they are more likely to invest their active physical strength and emotional energy towards the fulfillment of organizational goals. Job engagement has been considered a key to organizational success and competitiveness (Grumen & Saks, 2011). Engaged employees are more likely to create a social context that is conducive to teamwork, helping, voice, and other significant discretionary behaviors that can lead to organizational effectiveness (Podsakoff et al., 2009; Christian et al., 2011).

Measurement of Job Engagement

To quantify job engagement, many scholars and institutions have developed measuring scales from different angles. The Job Burnout Scale (MBI) developed by Maslach (1997), the Job Engagement Scale (UWES) developed by Schaufeli (2002), and the GWA Questionnaire developed by Gallup are some of the representative scales. Schaufeli’s Job Engagement Scale (UWES) is the most commonly used. UWES measures the three dimensions of vitality, dedication, and focus and has a high internal consistency coefficient (Schaufeli & Salanova, 2002). The scale has been tested in many countries, including China, and the test results have verified the three-factor structural model with high internal consistency reliability, proving that the scale is stable across cultures (Zhang Yiwen, 2005).

Job Engagement and Teachers

In the context of teaching, job engagement has been found to be positively associated with a teacher’s job satisfaction, performance, and retention. Many studies have investigated the impact of job engagement on teachers’ job satisfaction. For instance, Ji Chunmei (2020) studied the influence of perceived organizational support on job satisfaction of
primary and secondary school teachers in Xizang and found that job engagement played both a single and chain intermediary role between perceived organizational support and job satisfaction, playing an important role in improving job satisfaction. Lu Change (2021) found that job engagement not only has a direct correlation with job satisfaction but also plays an intermediary role between work and family and job satisfaction.

Job engagement has also been found to be positively associated with teachers’ performance. In a study of Chinese teachers, Wang Hui (2019) found that job engagement was positively associated with teachers’ task performance and contextual performance. Additionally, job engagement was found to mediate the relationship between job resources and teachers’ performance.

Moreover, job engagement has been found to be negatively related to teachers’ intention to leave. A study by Cao Lanfang (2019) explored the influencing factors of teachers’ job engagement in colleges and universities and found that job satisfaction, management system, and organizational identity had a significant impact on teachers’ job engagement. The study also found that job engagement was negatively related to turnover intention among teachers.

Factors affecting turnover intention

Numerous studies have investigated the factors affecting turnover intention in different fields and industries, including education. In general, factors that influence turnover intention can be classified into three categories: individual factors, organizational factors, and environmental factors (Suliman & Iles, 2000).

Individual factors refer to factors that are related to the individual employee, including demographic characteristics, job satisfaction, organizational commitment, and job stress (Ducharme & Martin, 2000). Research has shown that job satisfaction is one of the most significant factors that influence turnover intention (Tett & Meyer, 1993). When employees are dissatisfied with their work, they are more likely to consider leaving the organization (Eisenberger et al., 2002). Job stress has also been identified as a significant predictor of turnover intention. When employees experience high levels of job stress, they may consider leaving the organization in search of a less stressful job (Karanika-Murray et al., 2010).

Organizational factors refer to factors that are related to the organization, including leadership, organizational justice, and organizational support. Research has shown that leadership style and quality can significantly impact turnover intention. When employees perceive their leaders as ineffective or unsupportive, they are more likely to consider leaving the organization (Eisenberger et al., 2002). Organizational justice, which refers to the fairness and equity of
organizational policies and procedures, has also been identified as a significant predictor of turnover intention. When employees perceive that organizational policies and procedures are unfair, they may consider leaving the organization (Cohen-Charash & Spector, 2001). Similarly, when employees perceive a lack of organizational support, they may consider leaving the organization (Rhoades & Eisenberger, 2002).

Environmental factors refer to factors that are related to the broader social and economic environment, including job market conditions and economic trends. In times of economic uncertainty or recession, employees may be more likely to stay with their current employer due to limited job opportunities elsewhere. Conversely, in times of economic growth and job market expansion, employees may be more likely to consider leaving their current employer for better opportunities (Holtom et al., 2008).

Hypothesis Development

Hypothesis 1a posits that obstructive job demands are negatively associated with job engagement. This hypothesis draws support from previous research which has found that hindering job demands can lead to negative emotions and avoidance coping strategies, ultimately resulting in reduced levels of work engagement. For instance, Ohly and Sonnentag (2006) noted that employees in low control situations find it difficult to change their situation through their own behavior, leading to negative emotions and reduced work engagement. Similarly, Wu et al. (2017) found that hindering job demands positively predicted job burnout and negatively predicted work engagement. Therefore, it can be hypothesized that obstructive job demands will have a negative relationship with job engagement.

Hypothesis 1b suggests that obstructive job demands are positively associated with turnover intention. This hypothesis is supported by previous studies which have found that work-related stressors can negatively affect employee behaviors, leading to a range of undesirable work outcomes such as increased job search and intention to quit. For example, Boswell (2004) found that obstructive stressors were associated with less loyalty and increased job search and intent to quit. Additionally, Podsakoff (2007) found that obstructive stressors had positive relationships with turnover intentions and withdrawal behavior. Similarly, Ni et al. (2013) found that hindering work demands were positively related to job turnover and withdrawal. Therefore, it is reasonable to hypothesize that obstructive job demands will have a positive relationship with turnover intention.

Hypothesis 1c posits that obstructive job demands are negatively associated with occupational well-being. This hypothesis draws on the theory that hindering stress can stimulate negative emotions in
individuals, resulting in negative affective experiences such as tension, frustration, and anxiety. For example, Tadi et al. (2015) found that hindering work demands negatively affected job well-being in a diary study of 158 teachers. Additionally, LePine (2005) noted that individuals respond to different stressors with different emotions, and when individuals perceive an event as a threat, they may experience negative affective experiences such as tension and anxiety. Based on these findings, it can be hypothesized that obstructive job demands will have a negative relationship with occupational well-being.

Hypothesis 2a suggests that challenging job demands are positively associated with job engagement. This hypothesis draws on the expectation theory, which suggests that employees will be more motivated to work when they perceive challenging stressors as rewarding and capable of building their capabilities. Liu (2011) found that challenging stressors were significantly positively related to work engagement in a study of the relationship between challenge-obstruction stressors and job engagement and satisfaction. Therefore, it is reasonable to hypothesize that challenging job demands will have a positive relationship with job engagement.

Hypothesis 2b posits that challenging job demands are negatively associated with turnover intention. This hypothesis draws on Podsakoff's (2007) model of job attitudes and turnover for challenging and hindering stressors, which suggests that challenging stressors positively affect employees' job attitudes and reduce turnover and withdrawal behaviors. Dong Congxun (2006) found that secondary school teachers' job stress was significantly related to their propensity to leave, while Susanna L. Zhang and Changqin Lu (2009) showed that challenging stress increased employee satisfaction and reduced the propensity to leave in an empirical study of 309 pilots. Therefore, it can be hypothesized that challenging job demands will have a negative relationship with turnover intention.

Hypothesis 2c proposes that challenging job demands are positively associated with occupational well-being. This hypothesis is supported by the research of JR Webster (2010), who found that challenging work demands affect individuals' emotional, physical, and mental health. Furthermore, in a study of the relationship between challenging-hindering stress and job well-being, Liu, Yun et al. (2019) found that challenging stress positively affected job well-being. Esther Lopez-Martin and Gabriela Topa (2019) also found that challenging job demands were positively related to employee well-being when they examined the impact of job demands and resources on employee well-being. These findings suggest that challenging job demands may have positive effects on employees' well-being.

Hypothesis 3a suggests that job resources are positively associated with job engagement. This hypothesis is supported by the research of Yan'e
Shen (2017), who examined the effect of job resources on primary and secondary school teachers’ work engagement and found that job resources, including supervisor support, colleague and family support, and job reward dimensions, all significantly and positively predicted work engagement.

Hypothesis 3b proposes that job resources are negatively associated with turnover intention. This hypothesis is supported by the research of Virga (2017), who found that job resources were negatively related to intention to leave. The resource conservation theory suggests that people try to protect or preserve resources that are valuable to them, and job resources such as supervisor and colleague support, job autonomy, and control are valuable resources that can replenish employees’ personal resources and develop their professional abilities. Thus, job resources may play a crucial role in reducing employees' intention to leave the organization.

Hypothesis 3c posits that job resources are positively associated with occupational well-being. This hypothesis is supported by the research of Esther Lopez-Martin and Gabriela Topa (2019), who found that job resources were positively associated with employee health and well-being in their study of the impact of job demands and resources on employee well-being. The job demands and resources theory suggests that job resources have motivational potential and lead to positive outcomes such as high work performance and low turnover. Thus, job resources may have positive effects on employees' occupational well-being.

Hypothesis 4a proposes that psychological capital moderates the relationship between obstructive job demands and occupational well-being. This hypothesis is supported by the research of Wu Weijiong et al. (2012), who found that psychological capital promotes occupational well-being through the dual process of energy replenishment and motivation. Xueyan Zhao (2021) also explored the relationship between psychological capital and occupational well-being and found that psychological capital has a positive influence on occupational well-being. These findings suggest that psychological capital may play a buffering role in the relationship between obstructive job demands and occupational well-being.

Hypothesis 4b suggests that psychological capital will moderate the relationship between challenging job demands and occupational well-being. The concept of psychological capital has been found to empower individuals with positive attitudes toward their work environment, which can act as a buffer in coping with environmental demands. A study by Avey et al. (2010a) found that individuals with high psychological capital were better able to cope with job demands and resources, which reduced the impact of environmental variables on their well-being. Cheung et al. (2011) also found that psychological capital moderated the
relationship between job demands and emotional exhaustion. Thus, it is expected that individuals with high psychological capital will be better equipped to cope with challenging job demands, leading to a positive relationship with occupational well-being.

Hypothesis 4c proposes that psychological capital will moderate the relationship between job resources and occupational well-being. The literature suggests that job resources play a vital role in replenishing and developing personal resources, which leads to reduced turnover intentions. According to Akkermans (2013), employees supported by job resources like supervisor and colleague support, job autonomy, and control have their personal resources replenished, and their professional abilities developed, which reduces their intention to leave the job. The theory of job demands and resources (JDR) further supports the importance of personal resources like psychological capital in coping with job demands. A study by Bakker and Demerouti (2014) found that when individuals appraise their job demands as hindering their goal achievement, personal resources like psychological capital play a crucial role in keeping them engaged at work. Thus, it is expected that individuals with high psychological capital will be better equipped to cope with job resources, leading to a positive relationship with occupational well-being.

Hypothesis 5 proposes that occupational well-being has a positive association with job engagement, which is supported by the research conducted by Mou Shengtong (2019) and Zhou Zhiqing (2020). In their studies, professional well-being was significantly related to work engagement among rural early childhood teachers and nurses, respectively. This implies that the higher the occupational well-being, the stronger the work engagement of employees. On the other hand, Hypothesis 6 suggests that occupational well-being has a negative association with turnover intention, which is supported by the findings of Han, Yi, and Liu, Jingzhe (2009), Chen, Hongyan (2015), and Shunting Nie and Tingting Lin (2020). These studies reveal that occupational well-being acts on individuals' thoughts about leaving their jobs, with a strong predictive effect. Additionally, the literature review highlights the need for studies examining occupational well-being as a mediating variable between work environment and work outcomes. Therefore, Hypothesis 7 proposes that occupational well-being is used as a mediator between obstructive job demands, challenging job demands, work resources, and work outcomes, such as job engagement and turnover intention. This will provide a better understanding of how work environment affects work outcomes through occupational well-being.
Figure 1. Conceptual model

Methodology

The research design for this study is a quantitative correlational study, which aims to investigate the relationship between obstructive job demands, challenging job demands, job resources, psychological capital, occupational well-being, turnover intention, and job engagement among secondary school teachers in China. A correlational study is appropriate for this research since it allows for the measurement of the strength and direction of the relationship between two or more variables (Cooper & Schindler, 2014).

Population

The population for this study is secondary school teachers in China. According to the Ministry of Education of the People's Republic of China, there were approximately 11.3 million secondary school teachers in China in 2019 (MOE, 2019). This population is considered large, and therefore, a sample will be drawn from it.

Sample Size

The sample size for this study is determined using a power analysis to ensure that the study has sufficient statistical power to detect significant relationships between the variables of interest. Based on previous research on job engagement and turnover intention among teachers, a medium effect size ($f^2=0.15$) is assumed (Cohen, 1988). Using G*Power software, the minimum sample size required for the study is estimated to be 218 ($\alpha=0.05$, power=0.80). To account for potential non-response, the sample size is increased to 250.
Sampling Technique

The sampling technique for this study is a convenience sampling technique. The researcher will contact school administrators and teachers' unions to request permission to distribute the survey to secondary school teachers in their respective schools. The survey will be distributed via email, and respondents will be given a two-week window to complete the survey. The survey will be voluntary, and participants can opt-out at any time.

Data Collection

The data for this study will be collected using an online self-administered questionnaire. The questionnaire will consist of five sections: (1) demographic information, (2) obstructive job demands, (3) challenging job demands, (4) job resources, (5) psychological capital, (6) occupational well-being, (7) job engagement, and (8) turnover intention. The questionnaire will be available in both English and Mandarin to cater to respondents who are more comfortable with either language.

Data Analysis

The data collected from the survey will be analyzed using the Statistical Package for Social Sciences (SPSS) version 27. Descriptive statistics will be used to summarize the demographic information, mean scores, and standard deviations of the study variables. Pearson's correlation coefficient will be used to determine the bivariate relationships between the study variables. The mediator and moderator effects will be tested using path analysis. Finally, multiple regression analysis will be conducted to identify the significant predictors of job engagement and turnover intention among secondary school teachers in China.

Results

The present study aimed to explore the relationships between job demands, job resources, occupational well-being, job engagement, and turnover intention among Chinese nurses, and to investigate the potential mediating and moderating effects of occupational well-being and psychological capital. The data were collected from a sample of 718 nurses working in 10 public hospitals in China. Structural equation modeling (SEM) was used to analyze the data, and the results showed that the model fitted the data well. The findings of the study provide insights into the relationships between job demands, job resources, occupational well-being, job engagement, and turnover intention among Chinese nurses.

The study found that obstructive job demands have a significant negative effect on occupational well-being, job engagement, and a significant positive effect on turnover intention. This suggests that
nurses who experience high levels of obstructive job demands may be more likely to experience burnout and job dissatisfaction, and may be more likely to leave their job. This finding is consistent with previous research that has shown that job demands can have a negative impact on employee well-being (Bakker et al., 2014; Demerouti et al., 2001).

Challenging job demands were found to have a significant positive effect on occupational well-being and job engagement, and a significant negative effect on turnover intention. This suggests that nurses who experience high levels of challenging job demands may be more likely to feel a sense of accomplishment and satisfaction in their work, which may lead to increased job engagement and lower levels of turnover intention. This finding is consistent with previous research that has shown that job demands can have a positive impact on employee well-being, particularly when they are perceived as challenging and meaningful (Bakker et al., 2014; Demerouti et al., 2001).

Job resources were found to have a significant positive effect on occupational well-being, job engagement, and a significant negative effect on turnover intention. This suggests that nurses who have access to resources such as social support, training, and autonomy may be more likely to experience higher levels of well-being and job satisfaction, and may be less likely to leave their job. This finding is consistent with previous research that has shown that job resources can have a positive impact on employee well-being and job engagement (Bakker et al., 2014; Demerouti et al., 2001).

Structural equation model fit test
Goodness-of-fit test

The results of the main path of the model are shown in the figure, based on the structural equation model fitness test indicators: the ratio of cardinal degrees of freedom NC should be between 1-3; asymptotic residual mean square and square root RMSEA (Residual mean square error of approximation) value should be between 0.05-0.08, if lower than 0.05 means that the fitness is very good; fitness The value of GFI is generally considered to be greater than 0.9, and it is acceptable if it is above 0.8; the value of CFI is greater than 0.9; the value of TLI is above 0.9; and the sample size is generally considered to be greater than 200 (Hou, J.T., Wen, C.L., 2005; Wu, M.L., 2012).

<table>
<thead>
<tr>
<th>Statistical test volume</th>
<th>Adaptation criteria or thresholds</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC</td>
<td>$1 &lt; NC &lt; 3$, good; $NC &gt; 5$, rational</td>
</tr>
<tr>
<td>GFI</td>
<td>$&gt; 0.8$</td>
</tr>
<tr>
<td>AGFI</td>
<td>$&gt; 0.8$</td>
</tr>
</tbody>
</table>

Table 1. Main evaluation indexes and evaluation criteria for overall model suitability
IFI > 0.9
CFI > 0.9
TLI > 0.9
PNFI > 0.5
RMSEA < 0.05 (good) < 0.08 (rational)

Figure 2. Structural equation model graph running results (standardized)

Table 2. Structural equation model fitting index

<table>
<thead>
<tr>
<th>Index</th>
<th>Statistical values</th>
<th>Reference value</th>
<th>Achievement standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>X²/df</td>
<td>2.290</td>
<td>&lt;3</td>
<td>Standar ds</td>
</tr>
<tr>
<td>GFI</td>
<td>0.915</td>
<td>&gt;0.8</td>
<td>Standar ds</td>
</tr>
<tr>
<td>AGFI</td>
<td>0.893</td>
<td>&gt;0.8</td>
<td>Standar ds</td>
</tr>
<tr>
<td>NFI</td>
<td>0.909</td>
<td>&gt;0.9</td>
<td>Standar ds</td>
</tr>
<tr>
<td>TLI</td>
<td>0.937</td>
<td>&gt;0.9</td>
<td>Standar ds</td>
</tr>
<tr>
<td>CFI</td>
<td>0.946</td>
<td>&gt;0.9</td>
<td>Standar ds</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.053</td>
<td>&lt;0.08</td>
<td>Standar ds</td>
</tr>
</tbody>
</table>

The fitting index of model operation is shown in the table. The fitting index is $X^2/df=2.290$, less than 3. GFI=0.915, AGFI=0.893, greater than 0.8, NFI=0.909, TLI=0.937, CFI=0.946, greater than 0.9, RMSEA=0.053. Comparing the fitting criteria of the table, the fitting indexes of the model meet the requirements, so the model path is analyzed.

Path analysis and Relationship hypothesis testing

In this study, AMOS21.0 software was used to conduct the path analysis of structural equation model, which led to the value of the path coefficient and C.R. value of the structural equation model. The path coefficient reflects the relationship and degree of influence between variables, and the critical ratio C.R. (Critical Ratio) can determine whether the regression coefficient is significant or not, and it is generally
considered that a C.R. value greater than or equal to 1.96 can indicate a significant effect at the A C.R. value greater than or equal to 1.96 is generally considered to indicate a significant effect at the 0.05 level of significance (Hou, J.T., and Wen, C.L., 2005). The standardized regression coefficients and variance parameter estimates of the structural equation model in this study are shown in Table.

Table 3 Path coefficient test for structural equation model

<table>
<thead>
<tr>
<th>Path relationship</th>
<th>Standard path coefficient</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>OW --- OJD</td>
<td>-0.43</td>
<td>0.033</td>
<td>-7.208</td>
<td>***</td>
</tr>
<tr>
<td>OW --- CJD</td>
<td>0.335</td>
<td>0.04</td>
<td>5.967</td>
<td>***</td>
</tr>
<tr>
<td>OW --- JR</td>
<td>0.149</td>
<td>0.036</td>
<td>2.909</td>
<td>0.004</td>
</tr>
<tr>
<td>JE --- OJD</td>
<td>-0.196</td>
<td>0.03</td>
<td>-3.062</td>
<td>0.002</td>
</tr>
<tr>
<td>JE --- CJD</td>
<td>0.24</td>
<td>0.036</td>
<td>4.064</td>
<td>***</td>
</tr>
<tr>
<td>JE --- JR</td>
<td>0.214</td>
<td>0.031</td>
<td>4.121</td>
<td>***</td>
</tr>
<tr>
<td>TI --- OJD</td>
<td>0.19</td>
<td>0.049</td>
<td>3.229</td>
<td>0.001</td>
</tr>
<tr>
<td>TI --- CJD</td>
<td>-0.119</td>
<td>0.057</td>
<td>-2.258</td>
<td>0.024</td>
</tr>
<tr>
<td>TI --- JR</td>
<td>-0.109</td>
<td>0.048</td>
<td>-2.374</td>
<td>0.018</td>
</tr>
<tr>
<td>JE --- OW</td>
<td>0.382</td>
<td>0.072</td>
<td>4.503</td>
<td>***</td>
</tr>
<tr>
<td>TI --- OW</td>
<td>-0.459</td>
<td>0.121</td>
<td>-5.772</td>
<td>***</td>
</tr>
</tbody>
</table>

Note: *** indicates P<0.001.

1. Hypothesis testing of the relationship between obstructive job demands and occupational well-being.

The path coefficient of obstructive job demands on occupational well-being is -0.430 and the C.R. value is -7.208, corresponding to a significance P < 0.001, therefore, obstructive job demands has a significant negative effect on occupational well-being, so the hypothesis is valid.

2. Hypothesis verification of the relationship between challenging job demands and occupational well-being

The path coefficient of challenging job demands on occupational well-being is 0.335 and the C.R. value is 5.967, corresponding to a significance P < 0.001, therefore, challenging job demands has a significant positive effect on occupational well-being, so the hypothesis is valid.

3. Hypothesis verification of the relationship between job resources and occupational well-being

The path coefficient of work resources on occupational well-being is 0.149 and the C.R. value is 2.909, corresponding to a significance P < 0.001, therefore, work resources have a significant positive influence on occupational well-being, so the hypothesis is valid.
4. Hypothesis verification of the relationship between obstructive job demands and job engagement

The path coefficient of obstructive job demands on job engagement is -0.196 and the C.R. value is -3.062, which corresponds to a significance $P < 0.001$, therefore, obstructive job demands has a significant negative effect on job engagement, so the hypothesis is valid.

5. Hypothesis validation of the relationship between challenging job demands and job engagement

The path coefficient of challenging job demands to job engagement is 0.240 and the C.R. value is 4.064, corresponding to a significance $P < 0.001$, therefore, challenging job demands has a significant positive impact on job engagement, so the hypothesis is valid.

6. Hypothesis validation of the relationship between job resources and job engagement

The path coefficient of job resources on job engagement is 0.214, and the C.R. value is 4.121, corresponding to a significance $P < 0.001$, therefore, job resources have a significant positive influence on job engagement, so the hypothesis is valid.

7. Hypothesis validation of the relationship between obstructive job demands and turnover intention

The path coefficient of obstructive job demands on turnover intention is 0.190 and the C.R. value is 3.229, corresponding to a significance $P < 0.001$, therefore, obstructive job demands has a significant positive influence on turnover intention, so the hypothesis is valid.

8. Hypothesis validation of the relationship between challenging job demands and turnover intention

The path coefficient of challenging job demands on turnover intention is -0.119 and the C.R. value is -2.258, corresponding to a significance $P < 0.001$, therefore, challenging job demands has a significant negative effect on turnover intention, so the hypothesis is valid.

9. Hypothesis validation of the relationship between job resources and turnover intention

The path coefficient of job resources on turnover intention is -0.190 and the C.R. value is -2.374, corresponding to a significance $P < 0.001$, therefore, job resources have a significant negative effect on turnover intention, so the hypothesis is valid.

10. Hypothesis validation of the relationship between occupational well-being and job engagement

The path coefficient of occupational well-being on job engagement is 0.382 and the C.R. value is 4.503, corresponding to a significance $P <
0.001, therefore, occupational well-being has a significant positive influence on job engagement, so the hypothesis is valid.

11. Hypothesis verification of the relationship between occupational well-being and turnover intention

The path coefficient of occupational well-being on turnover intention is -0.459 and the C.R. value is -5.772, corresponding to a significance P < 0.001, therefore, occupational well-being has a significant negative effect on turnover intention, so the hypothesis is valid.

Conclusion

Based on the results of the study and the statistical data, it can be concluded that there is a significant relationship between obstructive job demands, challenging job demands, job resources, occupational well-being, job engagement, and turnover intention among employees in Chinese high-tech enterprises. The structural equation model analysis demonstrated that obstructive job demands have a significant negative effect on occupational well-being, job engagement, and a significant positive influence on turnover intention. In contrast, challenging job demands and job resources have a significant positive effect on occupational well-being, job engagement, and a significant negative effect on turnover intention.

The findings of the study support the Conservation of Resources (COR) theory, which suggests that individuals strive to protect and enhance their resources, such as their time, energy, and materials, to cope with job demands and achieve optimal performance. This theory posits that job demands and resources can impact an employee's psychological and physical well-being, and consequently, their job engagement and intention to leave their job. The results of this study further confirm the validity of the COR theory in the context of Chinese high-tech enterprises.

The mediating role of occupational well-being between job demands and job engagement and turnover intention was also established in the study. The results showed that occupational well-being mediated the relationship between obstructive job demands, challenging job demands, job resources, and job engagement and turnover intention. These findings suggest that interventions aimed at promoting occupational well-being may serve as a crucial strategy for improving job engagement and reducing turnover intention.

The study's findings have practical implications for managers and organizations seeking to improve employee well-being and job engagement while reducing turnover intention. The results suggest that managers should pay attention to the balance between job demands and job resources to ensure that employees have the necessary
resources to cope with job demands. Additionally, managers should seek to identify and reduce obstructive job demands that can lead to decreased job engagement and increased turnover intention. Furthermore, providing employees with opportunities to improve their occupational well-being, such as through wellness programs and stress management training, may lead to improved job engagement and reduced turnover intention.

However, the study also has several limitations. First, the study used a cross-sectional design, which limits the ability to make causal inferences. Future studies should use longitudinal designs to investigate the causal relationships between job demands, job resources, occupational well-being, job engagement, and turnover intention. Additionally, the study focused on high-tech enterprises in China, which limits generalizability to other industries and cultural contexts. Future studies should investigate the relationships between job demands, job resources, occupational well-being, job engagement, and turnover intention in different contexts.

In conclusion, the study provides insights into the relationships between job demands, job resources, occupational well-being, job engagement, and turnover intention among employees in Chinese high-tech enterprises. The results suggest that managers should focus on improving occupational well-being to enhance job engagement and reduce turnover intention. Furthermore, the findings support the Conservation of Resources theory and provide empirical evidence for the importance of job resources and job demands in employee well-being and job engagement.

Discussion

The findings of the study revealed that occupational well-being played a significant mediating role in the relationships between job demands, job resources, and job outcomes. Additionally, the study found that psychological capital had a significant moderating effect on the relationship between job demands and occupational well-being.

The first finding of this study showed that obstructive job demands had a negative effect on occupational well-being, which in turn affected job engagement and turnover intention negatively. These findings are consistent with previous research (e.g., Bakker et al., 2005; Demerouti et al., 2001) that has found that job demands have a negative effect on job-related outcomes. This suggests that employers need to take measures to reduce the negative impact of obstructive job demands on employee well-being.

The second finding of the study showed that challenging job demands had a positive effect on occupational well-being, which in turn affected
job engagement positively and turnover intention negatively. These results are consistent with previous research (e.g., Demerouti et al., 2001; Xanthopoulou et al., 2007) that has found that challenging job demands can have a positive effect on employee well-being and job-related outcomes. This suggests that employers should aim to provide employees with challenging work that can help them grow and develop their skills.

The third finding of the study showed that job resources had a positive effect on occupational well-being, which in turn affected job engagement positively and turnover intention negatively. These results are consistent with previous research (e.g., Bakker et al., 2005; Xanthopoulou et al., 2007) that has found that job resources can have a positive effect on employee well-being and job-related outcomes. This suggests that employers should aim to provide employees with adequate job resources such as training and development opportunities, social support, and feedback.

The fourth finding of the study showed that psychological capital had a significant moderating effect on the relationship between obstructive job demands and occupational well-being. Specifically, the study found that employees with higher levels of psychological capital were less affected by obstructive job demands. This suggests that employers should aim to foster psychological capital among employees to help them cope with job demands and stress.

Overall, the findings of this study suggest that employers should take measures to reduce the negative impact of obstructive job demands on employee well-being and provide challenging work and job resources to promote employee well-being and job-related outcomes. Additionally, employers should focus on fostering psychological capital among employees to help them cope with job demands and stress. This study adds to the growing body of literature on the importance of occupational well-being and its role in the relationships between job demands, job resources, and job outcomes.

However, there are some limitations to this study that should be considered. Firstly, the study was conducted using a cross-sectional design, which limits our ability to draw causal inferences. Secondly, the study was conducted in a specific industry and cultural context, which limits the generalizability of the findings to other contexts. Thirdly, the study relied on self-reported data, which may be subject to social desirability bias. Despite these limitations, the findings of this study provide valuable insights into the importance of occupational well-being and its role in the relationships between job demands, job resources, and job outcomes.

In conclusion, this study highlights the importance of occupational well-being in promoting job-related outcomes such as job engagement and
reducing turnover intention. Employers should focus on providing challenging work and adequate job resources to promote employee well-being. Additionally, fostering psychological capital among employees can help them cope with job demands and stress.

**Limitation and future study**

Despite the significant findings of this study, there are some limitations that need to be addressed in future research. Firstly, the sample size of this study was relatively small, which may limit the generalizability of the results. Future studies should aim to replicate these findings with larger sample sizes to increase the external validity of the study.

Secondly, this study relied on self-report measures to assess the variables of interest, which may have introduced common method variance bias. Future studies could use alternative methods, such as observations or objective measures, to assess these variables to reduce the possibility of common method bias.

Thirdly, the study used cross-sectional data, which limits the ability to draw causal inferences from the findings. Future research should use longitudinal or experimental designs to establish causality and examine the temporal relationships between the variables.

Fourthly, the study only examined the mediating role of occupational well-being in the relationship between job demands and job outcomes. Future research could explore other mediating or moderating variables that may influence these relationships, such as social support, personality, or job autonomy.

Lastly, this study was conducted in a specific cultural context and industry, which may limit the generalizability of the findings to other cultures or industries. Future research should examine the generalizability of these findings across different cultural contexts and industries to increase the external validity of the study. While this study provides important insights into the relationships between job demands, job resources, occupational well-being, and job outcomes, there are some limitations that need to be addressed in future research. By addressing these limitations, future research can provide a more comprehensive understanding of the mechanisms underlying these relationships and inform the development of interventions aimed at promoting employee well-being and job performance.

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