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Job demands, burnout, job performance and self-efficacy among medical media workers in China: A moderated mediation model

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Abstract

Purpose: This article aims to explore the relationship between job demands, burnout, and job performance among Medical Media Workers (MMWs), and to investigate the moderating role of self-efficacy. Using a cross-sectional quantitative design, data will be collected through surveys from 120 MMWs in three medical media companies in China. The study will employ multiple regression analysis to examine the moderating effect of self-efficacy on the relationship between job demands and burnout, and its impact on job performance. Instruments such as the Copenhagen Psychosocial Questionnaire, Burnout Assessment Tool, Individual Work Performance Questionnaire, and General Self-Efficacy Scale will be used to measure key variables. The findings may provide insights into how self-efficacy can buffer the negative impact of job demands on burnout, and its subsequent influence on job performance. The results could help inform interventions aimed at enhancing job performance and reducing burnout in MMWs by targeting self-efficacy as a modifiable personal resource.

Keywords: highly educated population, Medical media workers, Job demands, Burnout, Job performance, Self-efficacy,
JEL Classification Code: I10, M54, O15

1. Introduction

1.1. A highly educated population: Medical Media Workers

Medical Media Workers (MMWs) are a highly educated workforce, typically comprising medical journalists, editors, and journal reviewers. To effectively navigate the complexities of medical concepts and stay updated on the latest research, medical journalists and editors generally hold undergraduate or higher degrees in fields such as medicine, pharmacy, biological sciences, public health, or related disciplines. Journal reviewers, on the other hand, often have more advanced academic qualifications, such as a master's or doctoral degree, and have conducted in-depth research in a specific medical field (Lopez et al., 2019). MMWs play a crucial role in enhancing public health awareness, interpreting healthcare policies, and disseminating medical knowledge (Canales et al., 2008; Moynihan et al., 2000).

1.2. Job performance of MMWs

Job performance is a key research variable for MMWs because their professional output impacts the trajectory of their careers and the quality and reliability of health information disseminated to the public. Their performance directly influences how effectively public health awareness is raised, how well healthcare policies are communicated, and how thoroughly medical knowledge is shared (Klemm et al., 2019). Consequently, MMWs' contributions are critical in shaping public understanding and engagement with health and medical issues (Canales et al., 2008; Moynihan et al., 2000; Wen et al., 2020).

1.3. Job performance, Burnout, and JD-R mode

The Job Demands-Resources (JD-R) model is a widely used theoretical framework in organizational psychology and behavioral research, explaining how the work environment affects employees' well-being and performance. The JD-R model suggests that job demands and job resources activate two distinct processes: the health impairment process and the motivation process. The motivation process refers to how ample job resources can increase employee engagement, thereby enhancing job performance. In contrast, the health impairment process describes how excessive job demands can lead to prolonged stress, eventually resulting in burnout. In the JD-R model, job performance and burnout are key outcome variables, while job demands and job resources serve as significant predictor variables.

1.4. Job performance, Burnout, and JD-R model

The Job Demands-Resources (JD-R) model is a widely applied theoretical framework in organizational psychology and behavioral research, explaining how the work environment influences employee well-being and performance. This model suggests that job demands and job resources activate two distinct processes: the health impairment process and the motivation process. The motivation process refers to how abundant job resources can enhance employee engagement, leading to increased job performance. In contrast, the health impairment process highlights how high job demands can put employees under constant stress, potentially leading to burnout (Bauer et al., 2014; Demerouti et al., 2001; Galanakis & Tsitouri, 2022). In the JD-R model, job performance and burnout are key outcome variables, while job demands and job resources act as important antecedents (Bakker et al., 2004).

From the perspective of job demands, which refers to aspects of the job that require significant physical, emotional, or cognitive effort. Excessive job demands may overwhelm employees' cognitive capacity, leading to decreased attention, focus, and decision-making ability. This can negatively affect job performance, as employees may struggle to prioritize, plan, and complete tasks effectively (Bakker et al., 2004).

In addition to the direct impact of job demands on job performance, the JD-R model highlights that high job demands can directly lead to burnout, which further reduces job performance. High workloads, time pressure, and emotionally draining tasks require sustained effort. Over time, these demands deplete employees' energy, leading to emotional exhaustion and cynicism, the core dimensions of burnout (Bauer et al., 2014; Huang et al., 2016).

When employees lack sufficient resources to recover from exhaustion, true burnout may occur, making it difficult for them to handle even routine tasks (Bauer et al., 2014; Huang et al., 2016). Emotional exhaustion drains the energy needed for task execution, resulting in decreased productivity and more frequent mistakes. Exhausted employees often find it hard to maintain focus and effort, directly impacting job performance (Rošková & Faragová, 2020). Cynicism, another key aspect of burnout, leads to emotional distancing from work and colleagues. This detachment can reduce extra-role performance, such as organizational citizenship behavior, as employees become less willing to go beyond their basic duties, collaborate, or innovate (Bakker et al., 2004; Bauer et al., 2014).

1.5. Self-efficacy

Self-efficacy is broadly defined as an individual's belief in their ability to successfully execute the behaviors required to produce expected outcomes in a specific context. According to Bandura's influential work, self-efficacy is a key determinant of how people think, behave, and feel. It is task-specific and closely related to one's perception of control over the environment. When faced with challenges, higher self-efficacy leads to greater motivation, resilience, and persistence (Bandura, 1994; Lunenburg, 2011).

In JD-R model, job resources play a vital role in mitigating the negative impact of job demands on performance and burnout. Beyond objective resources like support and autonomy, employees' subjective personal resources are equally important (Huang et al., 2016). Self-efficacy, as a key personal resource, is crucial in moderating the relationship between job demands and burnout (Bandura, 1994). Employees with higher self-efficacy are better equipped to manage job demands, which helps reduce the effects of stress and fatigue, thereby lowering the risk of burnout. Essentially, self-efficacy enables individuals to handle heavy workloads, emotional demands, and organizational changes more effectively. It fosters optimism and perseverance, boosting resilience and helping employees remain energized and focused, even under pressure. In contrast, employees with lower self-efficacy are more vulnerable to burnout, as they may feel less capable of coping with workplace challenges and demands, increasing their risk of emotional exhaustion and disengagement (Lunenburg, 2011).

1.6. Conceptual model

Building on the theoretical framework outlined, researcher will develop a conceptual model based on the JD-R model, using MMWs as the sample. This conceptual model will enable researcher to assess the JD-R model's applicability within this highly educated population, while also examining the moderating effect of self-efficacy on the relationship between job demands and burnout.

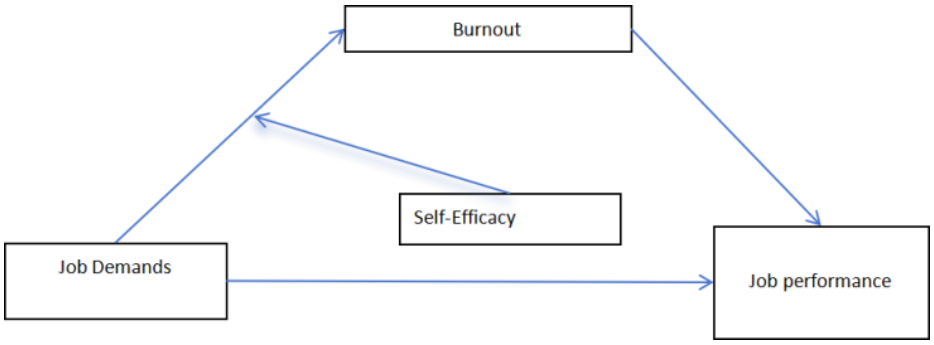

Figure 1: Conceptual Framework

2. Proposed research method

2.1. Research design

This quantitative cross-sectional study will use survey data to examine job demands, burnout, self-efficacy, and job performance among employees in three medical media companies. Multiple regression analysis will be employed to explore the moderating role of self-efficacy in the relationship between job demands and burnout, and its subsequent impact on job performance.

2.2. Participants

2.2.1 Characteristics:

Medical media workers are professionals involved in medical content creation, editing, production, and dissemination across medical platforms and publishing units. They typically possess medical education backgrounds and are proficient in both English and Chinese.

2.2.2 Sampling Procedure

A convenience sample of 120 participants from five medical media companies in China will be selected.

2.2.3 Sample Size

G*Power calculations, using a linear multiple regression model (Fixed model, R^2 deviation from zero) with 3 predictors, an effect size (f^2) of 0.15, an alpha level of 0.05, and a power of 0.80, recommend a minimum sample size of 77 participants. The participants will be recruited from medical media companies in mainland China using a convenience sampling technique, with the sample size increased to 120 to account for potential attrition.

2.3 Measurement

The study will employ quantitative instruments to measure job demands, burnout, job performance, and self-efficacy.

2.3.1 Copenhagen Psychosocial Questionnaire (COPSOQ III):

The short version of COPSOQ III (Burr et al., 2019) will be used to assess job demands, including quantitative demands, work pace, and emotional demands. The subscales show high reliability, with Cronbach's α values of 0.77, 0.80, and 0.80, respectively (Lincke et al., 2021; Ose et al., 2023).

2.3.2 Burnout Assessment Tool (BAT-12):

BAT-12 will measure burnout, focusing on exhaustion, mental distance, emotional impairment, and cognitive impairment. Cronbach's α for BAT ranges from 0.85 to 0.92. Participants will respond using a 5-point frequency scale (Schaufeli et al., 2020).

2.3.3 Individual Work Performance Questionnaire (IWPQ):

The IWPQ will evaluate job performance, covering task performance, contextual performance, and counterproductive work behavior. It has a 5-point rating scale and shows Cronbach's α between 0.79 and 0.89 (Koopmans et al., 2014; Van den Heuvel et al., 2010).

2.3.4 General Self-Efficacy Scale (GSE):

The GSE will assess self-efficacy, with Cronbach's α ranging from 0.76 to 0.90 across samples, demonstrating high reliability (Luszczynska et al., 2005; Scholz et al., 2002; Spector, 1985).

2.4 Data Collection

Participants will be recruited from the three companies, with ethical approval obtained from the Institutional Review Board (IRB) prior to recruitment. Surveys will be distributed electronically, and participants will respond anonymously. Reminders will be sent to maximize response rates.

2.5 Analysis

2.5.1 Descriptive Statistics

Descriptive statistics will summarize demographic characteristics (age, gender, education, work experience) and the descriptive statists of variables (job demands, burnout, job performance, self-efficacy).

2.5.2 Reliability

Cronbach's alpha will be calculated to assess the internal consistency of the scales prior to further analysis. If the Cronbach's alpha value is low, a table presenting the alpha values for each item will be provided. Items with low item-total correlations will be identified and considered for deletion to improve the overall reliability. Additionally, potential reasons for low Cronbach's alpha will be discussed.

2.5.3 Path Analysis via Multiple Regression

Path analysis using Process Macro (Bolin, 2014) will be applied to analyze the moderated mediation model.

5. Conclusion, expected outcome, and implications

This study aims to assess the applicability of the Job Demands-Resources (JD-R) model among Medical Media Workers (MMWs) and examine the moderating role of self-efficacy in the relationship between job demands and burnout. By investigating these dynamics within a highly educated population, this research seeks to better understand the factors influencing job performance in this critical field. As MMWs significantly impact public health awareness and healthcare policy communication, improving their job performance could enhance the dissemination of medical knowledge, benefiting society. While this study focuses on the JD-R model within the MMW context, future research should explore additional personal resources and assess the model's cross-cultural relevance. Interventions to improve self-efficacy, such as psychological training and career development programs, may further mitigate burnout and enhance job performance. The anticipated findings could inform both academic research and practical strategies to improve the well-being and effectiveness of this vital workforce, supporting broader public health objectives.

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