Influence of Job Demand, Social Support and Perfectionism on Presenteeism Among Teachers in China's Education Industry: The Mediating Role of Job Burnout

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Abstract

This study explores relationships between job demand, social support, perfectionism, job burnout, and presenteeism among Chinese teachers, with job burnout as a mediator. Guided by the JD-R Model and COR Theory, a cross-sectional survey of 486 K12 and higher education teachers was analyzed using SPSS and SmartPLS. Results indicate job demand and maladaptive perfectionism positively predict job burnout and presenteeism, while social support negatively predicts both. Job burnout partially mediates the effects of job demand, social support, and perfectionism on presenteeism. These findings extend JD-R and COR theories to China's education sector and provide strategies to reduce presenteeism and enhance teacher well-being.

Keywords:

Job demand; social support; perfectionism; job burnout; presenteeism; Chinese teachers

1. Introduction

1.1   Research Background

Presenteeism is a global problem in which employees are less productive due to physical and mental stress at work. This phenomenon is particularly prominent among K12 teachers in China due to pressures from policies like "double reduction," large class sizes, and urban-rural resource gaps. A 2024 survey showed 58% of K12 teachers worked monthly while sick, with higher rates for rural (65%) and temporary teachers (71%) versus urban (52%) and regular teachers (48%). This reduces student attention by 23% and question initiative by 31%, harming education quality and widening urban-rural equity gaps. It also increases administrative costs by 12%-15% and raises teacher turnover to 41%, far above the 18% average, while overlooking China-specific factors like exam-oriented education and Wechat communication burdens.

1.2   Problem Statement

The literature review points out four research gaps: first, there is insufficient research on the impact of Chinese teachers' unique job demands, such as "double reduction" and increasing burden, and exam-taking pressure, on their stress and presenteeism; Second, the individual antecedents of presenteeism are mostly isolated, and there is a lack of overall research integrating work demand, social support, perfectionism and other factors; Third, the mediating effect of job burnout between relevant antecedences and presenteeism has not been fully verified in the Chinese educational context; Fourth, the existing research provides insufficient practical guidance for schools to deal with presenteeism, and it is urgent to formulate evidence-based strategies at the policy, school and individual levels (Cao et al., 2020; CEU, 2023).

1.3   Research Objectives and Questions

1.3.1 Research Objectives

(1) Explore direct effects of job demand (workload, instability), social support, and perfectionism on job burnout in Chinese teachers.

(2) Analyze direct influences of job demand, social support, perfectionism, and job burnout on presenteeism in Chinese teachers.

(3) Reveal job burnout's mediating role between job demand, social support, perfectionism, and presenteeism.

1.3.2 Research Questions

(1) Do job demand, social support, and perfectionism directly affect job burnout in Chinese teachers?

(2) Do job demand, social support, perfectionism, and job burnout directly influence presenteeism in Chinese teachers?

(3) Does job burnout mediate the links between job demand, social support, perfectionism, and presenteeism in Chinese teachers?

1.4   Theoretical and Practical Significance

1.4.1 Theoretical Significance

This study extends the study of presenteeism to the field of Chinese education, fills the gap of context-oriented research in combination with the unique challenges of Chinese teachers, and reveals the performance and influencing factors of presenteeism in non-Western environments. It verifies the applicability of JD-R model and COR theory in China's education scene, and provides support for theory promotion. At the same time, the mediating mechanism of job burnout is clarified, and its antecedent correlation with presenteeism is explored, which enriches the theory of workplace behavior and deeps the cognition of relevant psychological processes.

1.4.2 Practical Significance

The results of this study provide practical suggestions for stakeholders in the field of education: education administrative departments can optimize the policy, refine the implementation of "double reduction", and reduce the unnecessary workload of teachers; Schools can rely on research to build an effective support system, reform teacher evaluation mechanism, relieve performance pressure, and create a positive working environment to help teachers' well-being. Teachers should pay attention to the cultivation of adaptive perfectionism, improve the ability of stress management, and reduce the risk of job burnout and presenteeism.

1.5   Definition of Key Terms

Job Demand: Work aspects requiring sustained effort, linked to physiological and psychological costs (Bakker & Demerouti, 2007). Specifically includes workload (teaching tasks, administrative duties, emotional labor from policies like "Double Reduction") and job instability (temporary contracts, teacher rotation) (Prasetyantiyas et al., 2022; De Witte et al., 2016).

Social Support: Emotional, instrumental, or informational assistance from others (Li et al., 2021). Includes emotional (care, empathy), instrumental (practical help), and informational (advice, guidance) support.

Perfectionism: A trait involving high standards and self-critical evaluation (Frost et al., 1990). Has two dimensions: maladaptive (fear of failure, self-criticism) and adaptive (growth-oriented, learning from mistakes).

Job Burnout: A syndrome from unmanaged chronic work stress (Maslach et al., 2001). Includes emotional exhaustion, depersonalization (cynical attitude), and reduced personal accomplishment (low self-efficacy) (Wu et al., 2019).

Presenteeism: Employees are present at work but with reduced productivity due to fatigue, illness, or stress (Aronsson, 2000). Contrasts with absenteeism; involves physical presence but functional impairment.

2. Literature Review

2.1 Theoretical Frameworks

2.1.1 Job Demands-Resources (JD-R) Model

The JD-R model of Bakker and Demerouti (2007) links job characteristics with employee well-being through two processes of health damage and motivation. Under the pressure of exam-oriented education in China, teachers' work needs include not only traditional teaching tasks, but also policy work such as after-school services under the "double reduction" policy, while resources include support, development, digital training and positive school culture (Low et al., 2021).

2.1.2 Conservation of Resources (COR) Theory

Developed by Hobfoll (1989), COR Theory states that people seek to acquire, retain, and protect valued resources, such as objective assets, conditions, personal traits, and energy. Stress occurs due to resource loss, threat of loss, or unmet gain after investment. In teaching, loss may include high workload, job instability, or lack of support, depleting energy and causing burnout. Presenteeism can serve as a coping strategy to prevent further loss—such as temporary teachers working while sick to avoid job termination. COR Theory extends the JD-R Model by emphasizing resource dynamics in stress and behavior, explaining presenteeism among Chinese teachers.

2.2 Literature Review of Core Variables

2.2.1 Dependent Variable: Presenteeism

Presenteeism among Chinese teachers is driven by policy, cultural, and institutional factors. The 'Double Reduction' policy increases workload via after-school services, and the exam-oriented system pressures for high scores, leading to high presenteeism. 58% of K12 teachers work while ill monthly (CAES, 2022). International studies show workload ($\beta=0.22$) and job instability ($\beta=0.19$) as positive predictors (Halbesleben et al., 2014; De Witte et al., 2016), but domestic quantitative evidence is lacking. China's collectivist culture and expectations of teacher dedication compel teachers to work while sick to avoid disappointing others, exacerbating the issue.

2.2.2 Independent Variables

Job Demand for K12 teachers in China is high. On average, they work 54 hours a week, exceeding the legal limit of 40 hours. 40% of their working time is spent on administrative tasks. The "Double Reduction" policy has also increased after-school tasks. 28% of teachers have temporary contracts, which leads to a lack of job security, low salaries, and few development opportunities, intensifying pressure and job burnout. There is a positive correlation between temporary contracts and job burnout.

Social support is key for well-being but often insufficient. Only 35% of rural teachers have mental health support, and urban teachers face weak colleague cooperation due to competition. Social support negatively correlates with burnout ($r = -0.38$). Emotional, instrumental, and informational support reduce stress and boost competence.

Perfectionism is common, driven by exam-oriented education. Forty-five percent show maladaptive perfectionism, with fear of failure and self-criticism, increasing burnout. Adaptive perfectionism, linked to growth mindset, reduces burnout (β = -0.18). Distinguishing both types is crucial for understanding presenteeism.

2.2.3 Mediating Variable: Job Burnout

Job burnout is prevalent among Chinese teachers, with 52% of K12 educators reporting moderate-to-severe levels (CAES, 2023). Emotional exhaustion affects 62%, followed by depersonalization and reduced personal accomplishment. Contributing factors include excessive workload, high job demands, lack of social support, and performance pressure. Job burnout can adversely affect the physical and mental health of teachers, their work performance, as well as the learning outcomes of students. In other industries, burnout mediates between job demand and presenteeism (Cao et al., 2020), but this mechanism is untested in Chinese education. Understanding burnout's mediating role is crucial for developing interventions to reduce presenteeism.

2.3 Conceptual Framework

This study's framework builds on the JD-R Model and COR Theory, integrating job demand, social support, perfectionism, job burnout, and presenteeism. It hypothesizes that: (1) Job demand, social support, and perfectionism directly affect job burnout and presenteeism; (2) Job burnout mediates the relationships between job demand, social support, perfectionism, and presenteeism; (3) China's educational context, such as the "Double Reduction" policy and exam-oriented culture, moderates these relationships. Specifically, the "Double Reduction" policy increases teachers' workload, strengthening job demand's positive effect on burnout and presenteeism. The exam-oriented culture intensifies maladaptive perfectionism's impact on burnout and presenteeism due to pressure for high scores.

2.4 Hypotheses Development

2.4.1 Direct Effects on Job Burnout

H1: Job demand positively predicts job burnout among Chinese teachers. High workload requires teachers to invest more time and energy, leading to physical and emotional exhaustion. Job instability creates uncertainty and anxiety, which also contributes to burnout.

H2: Social support negatively predicts job burnout among Chinese teachers. Adequate social support provides teachers with emotional, instrumental, and informational resources to cope with work-related stress, reducing the likelihood of burnout.

H3: Maladaptive perfectionism positively predicts job burnout among Chinese teachers, while adaptive perfectionism negatively predicts job burnout. Maladaptive perfectionism is associated with excessive self-criticism and unrealistic goals, leading to chronic stress and burnout. Adaptive perfectionism, on the other hand, promotes a growth mindset and resilience, reducing the risk of burnout.

2.4.2 Direct Effects on Presenteeism

H4: Job demand positively predicts presenteeism among Chinese teachers. High workload and job instability increase teachers' physical and mental strain, leading to reduced engagement and productivity at work.

H5: Social support negatively predicts presenteeism among Chinese teachers. Social support helps teachers cope with stress, maintain their physical and mental health, and enhance their work engagement, thereby reducing presenteeism.

H6: Maladaptive perfectionism positively predicts presenteeism among Chinese teachers, while adaptive perfectionism negatively predicts presenteeism. Maladaptive perfectionism leads to chronic stress and burnout, which in turn results in presenteeism. Adaptive

perfectionism promotes work engagement and productivity, reducing the likelihood of presenteeism.

H7: Job burnout positively predicts presenteeism among Chinese teachers. Burned-out teachers experience emotional exhaustion, depersonalization, and reduced personal accomplishment, which significantly impair their work performance and engagement, leading to presenteeism.

2.4.3 Mediating Effects

H8: Job burnout mediates the relationship between job demand and presenteeism among Chinese teachers. Job demand first leads to job burnout, and burnout then results in presenteeism.

H9: Job burnout mediates the relationship between perfectionism and presenteeism among Chinese teachers. Both maladaptive and adaptive perfectionism influence presenteeism through their effects on job burnout.

H10: Job burnout mediates the relationship between social support and presenteeism among Chinese teachers. Social support reduces job burnout, which in turn decreases presenteeism.

3. Research Methodology

3.1 Research Design

This study adopts a cross-sectional survey design to capture a snapshot of the relationship between variables at a specific time point.

3.2 Sample Design

In this study, full-time K12 and higher education teachers from primary schools to universities in various regions of the country were selected as the research objects. This study used snowball sampling, stratified by district, contract type, and school type, while combining convenience sampling and follow-up recruitment to ensure sample diversity, covering rural and temporary teachers. A total of 500 questionnaires were distributed, and 486 were effectively recovered , which met the requirements of the reliability and validity of PLS-SEM for the observed values of latent variables.

3.3 Research Tool

The questionnaire used in this study consists of 54 items, measured on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). The questionnaire was adapted from validated scales in the existing literature, with context-specific items added to reflect the unique characteristics of Chinese teachers' work environment. The structure and content of the questionnaire are shown in Table 1.

Table 1: Structure and Content of the Questionnaire

Section	Focus Area	Number of Items	Adapted from	Pre-test Cronbach's α
A	Demographic Information	8	Categorical	-
B	Job Demand (Workload/Job Instability)	10	Prasetyantiyas et al. (2022); De Witte et al. (2016)	0.79/0.81
C	Social Support	9	Lee et al.	0.88

	(Emotional/Instrumental/Informational)		(2021)	
D	Perfectionism (Maladaptive/Adaptive)	7	Frost et al. (1990)	0.86/0.82
E	Job Burnout (Emotional Exhaustion/Depersonalization/Reduced Accomplishment)	15	Maslach et al. (2001)	0.87
F	Presenteeism	6	Johns (2010)	0.84

The study covers demographics, job demand, social support, perfectionism, job burnout, and presenteeism. Pre-test indicated good reliability with Cronbach's α >0.7 for all constructs.

3.4 Data Analysis Methods

Descriptive statistics used SPSS 26.0 for frequencies, means, and SDs. Reliability and validity were assessed with Cronbach's α, CR, and AVE for convergent validity, and Fornell-Larcker for discriminant validity. Common method bias was evaluated via Harman's Single Factor Test (first factor <50% variance) and Full Collinearity Test (VIF <3.3). Hypotheses were tested with SmartPLS 4.0 using PLS-SEM, suitable for complex models and non-normal data. Bootstrapping with 5,000 samples assessed path coefficients and mediation effects.

4. Data Analysis and Results

4.1 Demographic Characteristics

The demographic characteristics of 486 valid respondents are shown in Table 2, and the samples are representative in terms of gender, age, region, contract and school type: 61.7% female teachers and 38.3% male teachers, which are consistent with the gender distribution of Chinese teachers. Most of them were 31-45 years old (51.2%), and the rest were 46-55 years old (23.7%), 18-30 years old (21.0%), and above 55 years old (4.1%). The eastern, central and western regions are evenly distributed, accounting for 39.9%, 30.0% and 30.1%; 72.0% for permanent contracts, 28.0% for temporary contracts, 69.9% for public schools, 30.1% for private institutions; Most of the teaching experience was 6-10 years (39.9%), and the overall distribution was diversified.

4.2 Preliminary Data Analysis

4.2.1 Reliability Analysis

The reliability of the measurement model was assessed using Cronbach's α coefficient and Composite Reliability (CR). As shown in Table 2, the Cronbach's α coefficients for all constructs range from 0.914 to 0.968, and the CR values range from 0.928 to 0.956. All values are greater than the recommended threshold of 0.7 (Nunnally, 1978; Hair et al., 2017), indicating excellent internal consistency reliability of the measurement scales.

Table 2: Reliability and Validity Analysis Results

Construct	Cronbach's α	CR	AVE	Factor Loadings (Range)
Workload	0.921	0.932	0.685	0.752–0.815
Job Instability	0.914	0.928	0.672	0.738–0.802
Social Support	0.945	0.948	0.723	0.785–0.836
Maladaptive Perfectionism	0.936	0.942	0.701	0.764–0.821

Adaptive Perfectionism	0.928	0.935	0.693	0.749–0.810
Emotional Exhaustion	0.958	0.956	0.783	0.801–0.853
Depersonalization	0.942	0.945	0.715	0.772–0.828
Reduced Personal Accomplishment	0.933	0.938	0.698	0.756–0.816
Presenteeism	0.940	0.943	0.709	0.768–0.823

4.2.2 Validity Analysis

The convergent validity was tested by AVE and factor loading, AVE was 0.562-0.783 (> 0.5), factor loading was 0.708-0.853 (> 0.7), and the convergent validity was good. Fornell-Larcker criterion is used to test the discriminant validity, and the square root of AVE is greater than the correlation between constructs, so the discriminant validity is good.

4.3 Hypothesis Testing Results

4.3.1 Direct Effects

The results of the direct effect tests are presented in Table 3. All direct effect hypotheses are supported. Job demand has the strongest positive effect on presenteeism ($\beta=0.566$, $p<0.001$), followed by maladaptive perfectionism ($\beta=0.189$, $p<0.001$). Social support negatively affects job burnout ($\beta=-0.363$, $p<0.001$) and presenteeism ($\beta=-0.070$, $p<0.05$). Adaptive perfectionism negatively predicts job burnout ($\beta=-0.128$, $p<0.01$) and presenteeism ($\beta=-0.092$, $p<0.05$). Job burnout positively predicts presenteeism ($\beta=0.113$, $p<0.01$).

Table 3: Direct Effect Test Results

Hypothesis	Path	β	SE	t-Value	p-Value	Result
H1a	Workload → Job Burnout	0.279	0.046	6.002	0.000	Supported
H1b	Job Instability → Job Burnout	0.215	0.043	5.000	0.000	Supported
H2	Social Support → Job Burnout	-0.363	0.037	9.664	0.000	Supported
H3a	Maladaptive Perfectionism → Job Burnout	0.176	0.044	3.977	0.000	Supported
H3b	Adaptive Perfectionism → Job Burnout	-0.128	0.041	3.122	0.002	Supported
H4	Job Demand → Presenteeism	0.566	0.029	19.502	0.000	Supported
H5	Social Support →	-0.070	0.033	2.153	0.031	Supported

	Presenteeism					
H6a	Maladaptive Perfectionism → Presenteeism	0.189	0.036	5.250	0.000	Supported
H6b	Adaptive Perfectionism → Presenteeism	-0.092	0.038	2.421	0.016	Supported
H7	Job Burnout → Presenteeism	0.113	0.038	2.957	0.003	Supported

4.3.2 Mediating Effects

The results of the mediating effect tests are presented in Table 4. All mediating hypotheses are supported. Job burnout partially mediates the relationships between job demand (indirect effect=0.031, 95% CI [0.009, 0.057]), perfectionism (indirect effect=0.020, 95% CI [0.005, 0.038]), social support (indirect effect=-0.041, 95% CI [-0.071, -0.013]), and presenteeism. The 95% confidence intervals of the indirect effects do not include 0, indicating that the mediating effects are statistically significant.

Table 4: Mediating Effect Test Results

Hypothesis No.	Mediating Path	Indirect Effect	SE	95% CI (LB/UB)	Result
H8	Job Demand → Job Burnout → Presenteeism	0.031	0.012	0.009/0.057	Supported
H9	Perfectionism → Job Burnout → Presenteeism	0.020	0.009	0.005/0.038	Supported
H10	Social Support → Job Burnout → Presenteeism	-0.041	0.015	-0.071/-0.013	Supported

5. Discussion

5.1 Core Findings

This study verified the five variables including job demand and ten hypotheses of Chinese teachers on presenteeism: job demand had the strongest predictive power on presenteeism (β=0.566), and maladaptive perfectionism had a positive impact (β=0.189); Social support and adaptive perfectionism negatively predict job burnout and presenteeism; Job burnout played a partial mediating role between the predictors and presenteeism, and China's "double reduction", exam-oriented system, temporary contract between urban and rural areas and other unique factors aggravated teacher presenteeism.

5.2   Alignment with Existing Literature

The results of this study are consistent with the JD-R model and COR theory. High job demand, low social support and job instability can easily lead to teacher burnout and presenteeism, while social support can alleviate such negative effects, which is consistent with the core views of the two theories. This study also includes educational policy background variables such as "double reduction" and exam-oriented culture to distinguish the differentiated effects of adaptive and maladaptive perfectionism, fill the gap in the study of perfectionism uniformity, and confirm the mediating role of job burnout in the Chinese educational scene, which is also a new finding for Chinese teachers. It further expands the perspective and boundary of related research on teacher presenteeism.

5.3   Implications

This study has both theoretical and practical implications: Theoretically, the JD-R model and COR theory are extended to non-Western educational situations to verify their explanatory power on teachers' job characteristics, stress and behavior in our country, so as to help promote the theory. Meanwhile, the duality of perfectionism is revealed, the mediating mechanism of job burnout is clarified, so as to fill the gap in domestic educational research and lay a foundation for subsequent research. In practice, education departments need to improve the "double reduction" policy, reduce the workload of teachers, guarantee the treatment of temporary teachers and establish a scientific evaluation system. Schools should create a supportive campus environment, reform the evaluation mechanism and provide relevant resources and training. Teachers can cultivate adaptive perfectionism, improve stress management ability and actively seek feedback support and professional development. These measures help relieve teachers' job burnout.

5.4   Limitations and Future Research

This study has limitations: the cross-sectional design limits causal inference due to potential bidirectional relationships; snowball sampling may introduce selection bias, reducing representativeness; self-reported data could have methodological and social desirability biases; and the lack of moderating variables like gender and age restricts generalizability. Future research should use longitudinal designs to establish causality and track changes, employ mixed methods for deeper insights, include moderating variables such as resilience and school culture, validate the model in vocational and preschool education for generalizability, and conduct cross-national comparisons to explore cultural differences in presenteeism.

6. Conclusion

This study explores the relationships between job demand, social support, perfectionism, job burnout, and presenteeism among Chinese teachers, with job burnout as a mediator. Using a cross-sectional survey with 486 valid questionnaires, all 10 hypotheses were confirmed. Results show that job demand and maladaptive perfectionism directly and via job burnout exacerbate presenteeism, while social support directly and indirectly reduces it. The findings extend the JD-R Model and COR Theory to Chinese education, provide practical implications for education departments, schools, and teachers, and lay a groundwork for future research. Addressing Chinese teachers' challenges and implementing interventions can reduce presenteeism, enhance well-being, and improve education quality in China.

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