The Effect of Challenge-Hindrance Stress on Burnout Among Young Township Civil Servants: The Mediating Role of Overcommitment and Avoidant Coping

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Abstract. Young township civil servants are the backbone of grassroots governance, yet their occupational burnout is becoming increasingly prominent. Based on the challenge-hindrance stress model, this study explores how work stress affects burnout among 352 young township civil servants, and examines the mediating roles of overcommitment ("involution"-style effort) and of avoidant coping ("lying-flat" strategy). Using SPSS 26.0 and PROCESS macro, the results show that: (1) challenge stress negatively predicts burnout, while hindrance stress positively predicts burnout; (2) overcommitment partially mediates the relationship between challenge stress and burnout (indirect effect = –0.121, 95% CI [–0.184, –0.071]); (3) avoidant coping partially mediates the relationship between hindrance stress and burnout (indirect effect = 0.120, 95% CI [0.064, 0.184]). This study reveals a dual-path mechanism: challenge stress is associated with lower burnout partly by inhibiting overcommitment, whereas hindrance stress is associated with higher burnout partly by triggering avoidant coping. Theoretical and practical implications for grassroots civil service management are discussed.

Keywords: Challenge-hindrance stress, Burnout, Overcommitment, Avoidant coping, Township civil servants.

1 Introduction

Young township civil servants are the main workforce of grassroots governance in China, undertaking policy implementation, public services, and conflict mediation. With the deepening of rural revitalization and increasing grassroots tasks, they face mounting work pressure. Meanwhile, two seemingly contradictory phenomena have emerged among grassroots cadres: some fall into "involution"—excessive competition and ineffective effort—while others adopt "lying-flat"—psychological withdrawal and lowered expectations. Together, both phenomena reflect the complex impact of work stress on individual mental states.

In particular, occupational burnout refers to a state of emotional exhaustion, depersonalization, and reduced personal accomplishment [1]. When civil servants experience high burnout, they may reduce work input, lower efficiency and quality, leading to

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"indolent governance" that undermines administrative capacity and public trust [2, 11]. Existing studies have largely focused on burnout's negative outcomes, but research on its antecedents—especially how work stress affects burnout through coping strategies—remains insufficient [3].

To bridge this gap, we operationalize "involution" as overcommitment—a compulsive excessive investment of effort with diminishing returns, consistent with Siegrist's (1996) effort-reward imbalance model [4]. We operationalize "lying-flat" as avoidant coping—a passive strategy of problem-avoidance and expectation-lowering, grounded in the job demands-resources framework [5].

This study investigates: (1) whether challenge and hindrance stress have opposite effects on burnout; (2) whether overcommitment mediates the challenge stress–burnout relationship; and (3) whether avoidant coping mediates the hindrance stress–burnout relationship. The findings offer theoretical insights and practical guidance for managing grassroots civil servants.

2 Theoretical Framework and Hypotheses

2.1 Challenge-Hindrance Stress Model

Cavanaugh et al. (2000) distinguished two types of work stress [6, 12]. Challenge stress refers to demands that, while taxing, offer potential gains (e.g., high workload, time pressure, responsibility), stimulating motivation and positive emotions. Hindrance stress refers to demands that obstruct personal growth and goal achievement without accompanying benefits (e.g., role ambiguity, red tape, organizational politics), primarily triggering negative emotions and withdrawal.

2.2 Overcommitment and Avoidant Coping

By contrast, overcommitment, derived from Siegrist's effort-reward imbalance model, is a maladaptive coping pattern characterized by compulsive over-investment in work and inability to detach [4]. It manifests as excessive time and effort investment, meaningless repetitive work, and perfectionism.

Avoidant coping involves cognitive and behavioral efforts to escape or ignore stressors, such as postponing decisions, waiting for instructions, and lowering expectations [5]. It is generally considered non-adaptive and linked to poorer outcomes.

2.3 Hypotheses

Drawing on the above theories and conservation of resources theory (Hobfoll, 1989) [7], we propose:

H1: Challenge stress negatively affects burnout, while hindrance stress positively affects burnout.

H2: Overcommitment mediates the relationship between challenge stress and burnout.

H3: Avoidant coping mediates the relationship between hindrance stress and burnout.

3 Method

3.1 Participants and Procedure

A total of 352 young township civil servants (aged ≤35) from various townships across eastern, central, and western China participated. Data were collected via an online platform (Questionnaire Star) and paper questionnaires. After screening for attention checks and response validity, 352 valid responses were retained (effective rate 75.21%). The sample comprised 58.2% male, 41.8% female; 32.1% aged 20-25, 38.1% aged 26-30, 29.8% aged 31-35; 59.1% held a bachelor's degree. Regarding job rank, 24.1% were clerks, 35.2% were staff, 28.1% were section-level cadres, 9.7% were deputy division-level, and 2.8% were division-level. Additionally, 41.8% held leadership positions.

3.2 Measures

All scales used a 5-point Likert format (1 = strongly disagree/never, 5 = strongly agree/always).

Challenge-hindrance stress (Cavanaugh et al., 2000) [6]: 3 items for challenge stress ($\alpha = 0.813$) and 4 items for hindrance stress ($\alpha = 0.809$). Exploratory factor analysis (EFA) was conducted to assess the factorial validity of the abbreviated scale. The Kaiser-Meyer-Olkin (KMO) measure was 0.900 for the overall scale, and Bartlett's test of sphericity was significant ($\chi^2 = 4161.312$, $df = 276$, $p < 0.001$), indicating that the data were suitable for factor analysis. For the challenge stress subscale, KMO = 0.715 and Bartlett's test was significant ($\chi^2 = 354.600$, $df = 3$, $p < 0.001$); for the hindrance stress subscale, KMO = 0.803 and Bartlett's test was significant ($\chi^2 = 434.366$, $df = 6$, $p < 0.001$). These results support the adequacy of the factor structure for the abbreviated version.

Overcommitment (adapted from Siegrist, 1996) [4]: 4 items measuring excessive effort and compulsive work involvement ($\alpha = 0.838$). The four items were selected from the original 6-item overcommitment scale based on content relevance to the grassroots civil service context as identified through a pilot qualitative interview with 12 township civil servants. The KMO measure for this subscale was 0.804, and Bartlett's test was significant ($\chi^2 = 536.891$, $df = 6$, $p < 0.001$), supporting the adequacy of the factor structure. The abbreviated version was retained to minimize survey fatigue given the length of the overall questionnaire and fieldwork constraints.

Avoidant coping (adapted from Carver et al., 1989) [8]: 4 items measuring problem-avoidance and withdrawal ($\alpha = 0.843$). The KMO measure for this subscale was 0.819, and Bartlett's test was significant ($\chi^2 = 547.161$, $df = 6$, $p < 0.001$).

Burnout (MBI-GS, Chinese version by Li & Shi, 2003): 9 items ($\alpha = 0.905$). The KMO measure for this subscale was 0.940, and Bartlett's test was significant ($\chi^2 = 1484.546$, $df = 36$, $p < 0.001$).

3.3 Data Analysis

Descriptive statistics, correlation, and regression analyses were performed using SPSS 26.0. Mediation effects were tested using PROCESS v4.1 (Model 4) with 5,000 bootstrap samples and 95% confidence intervals. To rule out potential confounding effects of individual characteristics, demographic variables including age, educational attainment, years of service, and job rank were entered as covariates in all regression models.

4 Results

4.1 Descriptive Statistics and Correlations

Descriptive means, standard deviations, and correlations are presented in Table 1. Challenge stress was negatively correlated with burnout ($r = –0.454$, $p < 0.001$), while hindrance stress was positively correlated with burnout ($r = 0.491$, $p < 0.001$), providing initial support for H1. Both overcommitment and avoidant coping were positively associated with burnout ($r = 0.446$ and 0.456, respectively, $p < 0.001$).

Table 1. Means, standard deviations, and correlations among variables.

Variable	M	SD	1	2	3	4	5
1. Challenge stress	3.527	1.040	1				
2. Hindrance stress	2.565	1.037	–0.398***	1			
3. Overcommitment	2.551	1.085	–0.458***	0.412***	1		
4. Avoidant coping	2.577	1.059	–0.420***	0.468***	0.479***	1	
5. Burnout	2.290	0.914	–0.454***	0.491***	0.446***	0.456***	1

*** $p < 0.001$.

4.2 Mediation Effects

After controlling for age, education, years of service, and job rank, all hypothesized paths remained significant, indicating that the observed mediation effects were robust beyond demographic influences.

H2 (Challenge stress → Overcommitment → Burnout): Challenge stress significantly negatively predicted overcommitment ($B = –0.478$, $p < 0.001$). When both challenge stress and overcommitment were entered, overcommitment positively predicted burnout ($B = 0.254$, $p < 0.001$), and the direct effect of challenge stress remained significant ($B = –0.278$, $p < 0.001$). The indirect effect was –0.121 (95% CI [–0.184, –0.071]), confirming partial mediation (effect ratio = 30.4%).

H3 (Hindrance stress → Avoidant coping → Burnout): Hindrance stress significantly positively predicted avoidant coping ($B = 0.478$, $p < 0.001$). When both hindrance stress and avoidant coping were entered, avoidant coping positively predicted burnout ($B = 0.250$, $p < 0.001$), and the direct effect of hindrance stress remained significant ($B = 0.313$, $p < 0.001$). The indirect effect was 0.120 (95% CI [0.064, 0.184]), confirming partial mediation (effect ratio = 27.6%).

5 Discussion

5.1 Key Findings

Consistent with the challenge-hindrance stress model, this study found that challenge stress was associated with lower burnout, while hindrance stress was associated with higher burnout among young township civil servants [9]. This confirms that not all work stress is detrimental—stress accompanied by growth opportunities can be protective.

More importantly, we identified two distinct mediating pathways. First, challenge stress reduced burnout partly by suppressing overcommitment ("involution"-style effort). When tasks are inherently meaningful, individuals are less likely to engage in wasteful repetitive work, thus preserving psychological resources. Second, hindrance stress exacerbated burnout partly by triggering avoidant coping ("lying-flat" strategies). Faced with uncontrollable obstacles like red tape and role ambiguity, individuals withdraw effort, which in turn depletes emotional resources and fosters cynicism.

5.2 Theoretical Contributions

This study makes three contributions. First, it translates the popular terms "involution" and "lying-flat" into measurable psychological constructs—overcommitment and avoidant coping—offering a framework for understanding differentiated coping behaviors among grassroots cadres. Second, it reveals a dual-path mediation mechanism, enriching the challenge-hindrance stress model in the public administration context. Third, it extends effort-reward imbalance and conservation of resources theories to the grassroots civil service setting, showing how different types of stress shape resource dynamics.

5.3 Practical Implications

Reduce hindrance stressors: Streamline unnecessary inspections, clarify role boundaries, and strengthen the link between performance and rewards to discourage avoidant coping [10].

Leverage challenge stressors: Assign meaningful challenging tasks with adequate support and training, and help young cadres distinguish effective effort from meaningless "involution."

Provide organizational support: Establish regular mental health screening, mentorship programs, and positive public narratives to enhance professional identity and break the avoidance–burnout cycle [13].

5.4 Limitations and Future Directions

However, this study has several limitations. First, the cross-sectional design precludes causal inference; longitudinal or experience-sampling studies are needed. Although demographic variables were statistically controlled in the analyses, the cross-sectional

design still cannot fully rule out unobserved confounding factors. Second, common method variance may inflate relationships, as all variables were self-reported; therefore, future research should incorporate supervisor ratings or objective performance data. Third, the sample was limited in senior-level and long-tenured participants; broader sampling across regions and hierarchies would enhance generalizability.

Fourth, the abbreviated challenge-hindrance stress scale and adapted overcommitment measure used in this study were validated through exploratory factor analysis (with satisfactory KMO and Bartlett's test results), rather than confirmatory factor analysis (CFA). We acknowledge that CFA would provide stronger evidence for the factor structure, and future studies should replicate our findings using the full scales with CFA. Fifth, our adapted overcommitment measure requires further validation with the full ERI scale in larger and more diverse Chinese samples.

6 Conclusion

This study examined the differential effects of challenge and hindrance stress on burnout among young township civil servants, and the mediating roles of overcommitment and avoidant coping. Based on a sample of 352 participants, the findings demonstrate that challenge stress is negatively associated with burnout, whereas hindrance stress is positively associated with burnout. More importantly, these relationships are partially explained by two distinct coping pathways: challenge stress suppresses overcommitment ("involution"-style effort), which in turn reduces burnout; hindrance stress triggers avoidant coping ("lying-flat" strategies), which in turn exacerbates burnout.

Theoretically, this study contributes to the literature by (1) operationalizing the contemporary phenomena of "involution" and "lying-flat" as measurable psychological constructs, (2) revealing a dual-path mediation mechanism that extends the challenge-hindrance stress model to the grassroots civil service context, and (3) integrating effort-reward imbalance and conservation of resources theories to explain how different types of stress influence burnout through distinct coping responses.

Practically, the results suggest that reducing hindrance stressors (e.g., streamlining inspections, clarifying role boundaries, strengthening performance-reward linkages) and leveraging challenge stressors (e.g., assigning meaningful tasks with adequate support) are promising strategies for mitigating burnout. Organizational support mechanisms—including mental health screening, mentorship programs, and positive public narratives—can further reinforce these efforts.

Despite these contributions, the cross-sectional design and reliance on self-reported data limit causal inferences. Future research should employ longitudinal designs and multi-source data to validate the observed mechanisms. The abbreviated scales also warrant further validation through confirmatory factor analysis in larger and more diverse samples.

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