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An Analysis of Key Factors Influencing Job Burnout Among University Teachers in Tangshan

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Abstract

Purpose: This study investigates the influence of five independent variables, Job Characteristics, Work-Family Conflict, Perceived Organizational Support, Quality of Working Life, and Psychological Well-being, on a dependent variable, Job Burnout. Additionally, it aims to identify significant differences among these variables. **Research design, data and methodology:** The study validated its questionnaire using the Index of Item-Objective Congruence and tested reliability with Cronbach's Alpha (n = 30). Eighty valid responses were collected from teachers at six universities in Tangshan and analyzed using multiple linear regression. A 12-week Strategic Plan (SP) intervention was then implemented with 40 teachers. Its effectiveness in improving burnout-related factors was assessed using paired sample t-tests comparing current-SP and expected-SP conditions. **Results:** The analysis revealed that Job Characteristics, Work-Family Conflict, and Psychological Well-being had a significant impact on Job Burnout, whereas Perceived Organizational Support and Quality of Working Life did not. Finally, the results of the paired-sample t-test demonstrated significant differences in Job Burnout between Current-SP and Expected-SP. **Conclusions:** The findings highlight the practical value of targeted interventions in reducing burnout. Universities should adopt structured strategies that address workload, work-family conflict, and psychological support to foster a healthier and more sustainable academic work environment**.**

Keywords: Job Characteristics, Work-Family Conflict, Psychological Well-being, Job Burnout, Intervention Design Implementation

JEL Classification Code: D91, I23, J20, J44, L84

1. Introduction

Healthcare smartwatches represent a unique category of wearable technology that provides users with real-time feedback, enabling them to monitor their health and take prompt action (Reeder & David, 2016). According to Glowacki et al. (2017), smartwatches effectively integrate smartphone features Teachers play a pivotal role in higher education, serving as the backbone of academic institutions by not only delivering extensive teaching workloads but also conducting scientific research and fulfilling administrative responsibilities. These multiple roles place significant demands on university educators, often resulting in elevated levels of work-related stress. In many higher education institutions, particularly in rapidly developing educational landscapes, faculty members must balance their core teaching duties with the pressures of research output, curriculum development, student mentorship, and institutional service expectations. This combination of responsibilities often leads to job burnout, a psychological syndrome characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment.

As educational reforms continue to deepen, higher education institutions are experiencing increasing demands

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for academic excellence, research productivity, and pedagogical innovation. These changes have intensified the workloads of university teachers, exacerbating stress levels and negatively affecting their well-being and professional performance. Consequently, job burnout among university faculty members has emerged as a critical issue that can significantly impact both individual educators and the broader academic community. Burnout not only diminishes job satisfaction and overall mental health but also affects teaching quality, student learning outcomes, and institutional effectiveness.

Existing research suggests that multiple factors contribute to job burnout, including job characteristics, work-family conflict, perceived organizational support, quality of working life, and psychological well-being. Job characteristics, such as excessive workload, role ambiguity, and lack of autonomy, are commonly linked to increased burnout. Similarly, work-family conflict arises when professional responsibilities interfere with personal and family life, further exacerbating stress levels. Moreover, perceived organizational support, which reflects the extent to which an institution values and supports its faculty members, plays a crucial role in shaping teachers' job satisfaction and resilience. Additionally, the quality of working life, including workplace conditions, compensation, career development opportunities, and social support, can either mitigate or intensify burnout symptoms. Lastly, psychological well-being, encompassing emotional stability, job engagement, and coping mechanisms, significantly influences how educators respond to workplace challenges.

In the context of Tangshan, China, this issue warrants particular attention. Tangshan, a historically industrial city undergoing rapid urbanization and economic restructuring, has witnessed significant investments in higher education. However, many local universities are simultaneously facing pressure to meet national education standards and research expectations without a proportional increase in institutional resources or staffing support. These regional disparities contribute to heightened stress and burnout among faculty. Moreover, teachers in Tangshan often experience unique social and environmental stressors, including urban redevelopment pressures and changing demographic profiles of the student body, which further compound their professional challenges.

Given this backdrop, a focused investigation into job burnout among university teachers in Tangshan offers valuable region-specific insights that may differ from findings in more developed metropolitan areas like Beijing or Shanghai. A deeper understanding of the local context is essential for implementing policies that are both effective and culturally relevant.

Therefore, this study aims to:

(1) Examine the influence of five key factors—Job Characteristics, Work-Family Conflict, Perceived Organizational Support, Quality of Working Life, and Psychological Well-being—on Job Burnout among university teachers in Tangshan;

(2) Design and implement a Strategic Plan (SP) intervention to address burnout-related factors and evaluate its effectiveness in improving teachers' work conditions and well-being;

(3) Provide evidence-based recommendations for policymakers and university administrators to develop sustainable strategies that reduce burnout, enhance job satisfaction, and support long-term faculty engagement and institutional performance.

2. Literature Review

2.1 Job Burnout (JB)

Job burnout is a psychological syndrome characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment, resulting from prolonged work-related stress (Maslach & Jackson, 1981). It is a growing concern in higher education, where university teachers face increasing workloads, balancing teaching, research, and administrative responsibilities. While global research recognizes burnout as a systemic issue across academia, there is a lack of region-specific studies addressing how socio-economic and institutional dynamics in second-tier Chinese cities like Tangshan shape burnout experiences. This study, focusing on university teachers in Tangshan, China, builds upon this gap by offering localized insights into burnout causes and interventions. These findings provide a foundation for targeted interventions aimed at improving work-life balance, job autonomy, and mental health support, ultimately fostering a more sustainable work environment for educators.

2.2 Job Characteristics (JC)

Job characteristics, including job content, work environment, autonomy, and job demands, significantly influence employees' well-being and job satisfaction (Hackman & Oldham, 1976). Research consistently shows that excessive workloads, role ambiguity, and lack of autonomy contribute to higher burnout levels, particularly among educators (Maslach & Leiter, 2016). The Job Demands-Resources (JD-R) model explains that high job demands, such as administrative burdens and student-related pressures, lead to exhaustion, whereas sufficient job resources, like autonomy and institutional support, can mitigate burnout (Demerouti et al., 2001). Studies confirm

that increased autonomy and control over work tasks reduce burnout risk, while excessive demands heighten emotional exhaustion (Bakker & Demerouti, 2007; Schaufeli & Taris, 2014). However, other studies point out that job autonomy alone is not sufficient to reduce burnout if workload intensity remains unmanageable (Taris & Schreurs, 2009), suggesting a need to balance both demands and resources simultaneously. Addressing workload balance, enhancing job control, and providing institutional support are essential strategies for reducing burnout and promoting a healthier academic work environment (Hakanen et al., 2006). This study extends the literature by testing whether job characteristics remain a significant predictor of burnout within the unique institutional settings of Tangshan universities. Therefore, the following hypothesis is proposed:

H1: Job characteristics have a significant impact on job burnout among university teachers.

2.3 Work Family Conflict (WFC)

Work-family conflict (WFC) occurs when work and family responsibilities clash, making it difficult for individuals to balance these roles (Greenhaus & Beutell, 1985). Teachers, in particular, experience high levels of WFC due to heavy workloads, long hours, and emotional labor, contributing to increased stress and exhaustion (Huang et al., 2020). Research consistently shows that WFC is a significant predictor of job burnout, leading to emotional exhaustion, depersonalization, and reduced personal accomplishment (Noor & Zainuddin, 2011). Work-to-family conflict, where job demands interfere with personal life, has been linked to higher burnout levels, while family-to-work conflict also exacerbates stress by hindering professional performance (Yu et al., 2018). The Job Demands-Resources (JD-R) model suggests that WFC acts as a job demand that depletes personal resources, increasing burnout risk (Demerouti et al., 2001). However, some recent studies argue that strong organizational support can moderate the effects of WFC on burnout, suggesting an interplay between conflict and institutional responses (Crain et al., 2014). Reducing WFC through institutional support, workload management, and flexible policies can help mitigate burnout and improve teacher well-being. This study contributes to the field by examining how WFC impacts burnout specifically among Chinese university teachers, where cultural expectations of work and family roles may differ from Western contexts. Therefore, the following hypothesis is proposed:

H2: Work family conflict has a significant impact on job burnout among university teachers.

2.4 Perceived Organizational Support (POS)

Perceived Organizational Support (POS) refers to employees' perception of how much their organization values their contributions and cares about their well-being (Eisenberger et al., 1986). POS is crucial in high-stress professions like teaching, where institutional support can significantly impact job satisfaction and burnout levels. Research indicates that higher POS is associated with lower job burnout, as it enhances employees' sense of job security, emotional well-being, and motivation (Rhoades & Eisenberger, 2002). Teachers who perceive strong institutional support experience less emotional exhaustion and greater job engagement, as they feel recognized and valued (Bakker et al., 2007). Conversely, low POS exacerbates burnout, particularly when teachers face excessive workloads, limited resources, and lack of administrative recognition (Tadesse et al., 2021). The Job Demands-Resources (JD-R) model suggests that POS functions as a key job resource, buffering against burnout by providing emotional and instrumental support (Schaufeli & Taris, 2014). Nonetheless, other studies highlight that POS may have an indirect effect on burnout, primarily through mediating variables such as job satisfaction or work engagement (Panaccio & Vandenberghe, 2009), suggesting that its direct effect can vary depending on organizational culture. Empirical studies suggest that fostering a supportive organizational culture, clear communication, and professional development opportunities can reduce teacher burnout and improve retention rates (Kurtessis et al., 2017). This study tests the direct influence of POS on burnout within the Chinese public university system, where formal recognition and leadership transparency may differ from global norms. Therefore, the following hypothesis is proposed:

H3: Perceived organizational support has a significant impact on job burnout among university teachers.

2.5 Quality of Working Life (QWL)

Quality of Working Life (QWL) refers to the overall conditions of the work environment, encompassing factors such as job security, compensation, work-life balance, and job satisfaction (Nadler & Lawler, 1983). A positive QWL is essential in reducing occupational stress and enhancing employee well-being, particularly in high-demand professions like teaching. Research suggests that higher QWL is associated with lower levels of job burnout, as it fosters job engagement and psychological well-being (Van Laar et al., 2007). Teachers working in supportive environments with fair compensation, manageable workloads, and professional growth opportunities report lower emotional exhaustion and higher job satisfaction

(Sirgy et al., 2001). Conversely, a poor QWL, characterized by excessive workloads, inadequate resources, and job insecurity, has been linked to increased burnout and workplace dissatisfaction (Mosadeghrad, 2013). The Job Demands-Resources (JD-R) model explains that QWL acts as a job resource that buffers against burnout, providing employees with the necessary conditions to manage work-related stress (Demerouti et al., 2001). However, some scholars argue that QWL must be evaluated in cultural context, as perceptions of fairness and satisfaction can vary widely (Chinomona & Dhurup, 2014). Empirical studies suggest that organizations can enhance QWL by reducing excessive job demands, promoting work-life balance, and fostering a supportive institutional culture. This study extends current knowledge by assessing QWL's role in burnout in mid-sized Chinese cities, where resource allocation and promotion systems may affect faculty perceptions differently than in top-tier institutions. Therefore, the following hypothesis is proposed:

H4: Quality of working life has a significant impact on job burnout among university teachers.

2.6 Psychological Well-being (PW)

Psychological well-being (PWB) refers to an individual's overall emotional and psychological health, encompassing factors such as life satisfaction, emotional stability, and personal growth (Seligman & Csikszentmihalyi, 2000). In high-demand professions like teaching, maintaining strong PWB is essential for managing occupational stress and preventing burnout. Research indicates that higher PWB is associated with lower levels of job burnout, as it enhances resilience, job engagement, and coping abilities (Ryff & Singer, 2008). Teachers with positive psychological well-being experience lower emotional exhaustion and higher job satisfaction, allowing them to manage job-related stress more effectively (Hu et al., 2017). Conversely, poor PWB has been linked to higher burnout levels, with symptoms such as fatigue, depersonalization, and reduced personal accomplishment being more prevalent among teachers facing psychological distress (Zhang & Zhu, 2008). The Job Demands-Resources (JD-R) model suggests that PWB serves as a personal resource that buffers against burnout, helping educators cope with stressors like excessive workloads and emotional labor (Bakker & Demerouti, 2007). Some researchers argue that psychological well-being also interacts with external factors such as social support and institutional recognition, making it a multidimensional construct requiring contextual understanding (Dodge et al., 2012). Empirical studies highlight that interventions such as mental health support, stress management programs, and work-life balance policies can improve PWB and reduce burnout in teachers (Hülsheger et al., 2013). This study contributes by examining the role of PWB among Chinese university teachers, providing practical insights into how internal resilience intersects with institutional demands. Therefore, the following hypothesis is proposed:

H5: Psychological well-being has a significant impact on job burnout among university teachers.

3. Research Methods and Materials

3.1 Research Framework

This study integrates multiple theoretical perspectives to examine the factors contributing to job burnout among university teachers. Figure 1 illustrates the conceptual framework and hypothesized relationships.

The Job Characteristics Model (Hackman & Oldham, 1976) explains how elements such as workload, autonomy, and task clarity influence employee motivation and well-being. In this study, job characteristics are considered key structural drivers of burnout.

The Work-Family Conflict Theory (Greenhaus & Beutell, 1985) highlights how incompatible demands between work and personal life contribute to stress. Work-family conflict is conceptualized as a major psychological stressor that increases burnout risk.

Perceived Organizational Support (Eisenberger et al., 1986) suggests that employees who feel valued by their organization experience less emotional exhaustion. POS functions as a job resource that buffers against stress and burnout.

The Quality of Working Life Model (Nadler & Lawler, 1983) emphasizes how favorable working conditions, such as job security and career development, enhance satisfaction and reduce stress. QWL is treated as an environmental factor that mitigates burnout.

Psychological Well-being Theory (Seligman & Csikszentmihalyi, 2000) underscores the role of emotional resilience and life satisfaction. PWB serves as a personal resource that enhances teachers' ability to cope with work-related stress.

These variables are aligned with the Job Demands-Resources (JD-R) model (Demerouti et al., 2001), which posits that job burnout results from an imbalance between high demands (e.g., workload, role conflict) and limited resources (e.g., support, autonomy). This study applies this framework to assess both demand-side and resource-side influences on burnout in the context of Chinese higher education.

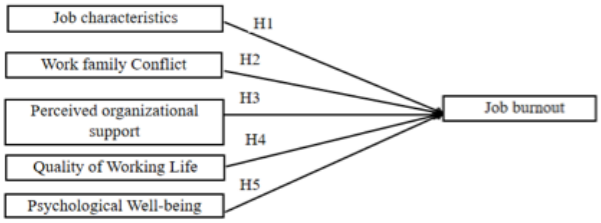

Figure 1: Conceptual Framework

3.2 Research Methodology

This study employed the Index of Item-Objective Congruence (IOC) to assess the validity of the questionnaire and used Cronbach's Alpha (n = 30) in a pilot test to evaluate its reliability. A total of 80 valid questionnaires were collected from six universities in Tangshan, and the data were analyzed using multiple linear regression to examine the significant relationships between the independent and dependent variables. Hypotheses that were supported were retained, while those that did not meet the criteria were rejected.

The sample size of 80 was guided by established recommendations for multiple regression, which suggest a minimum of 15 participants per predictor variable to ensure adequate statistical power (Hair et al., 2010). With five independent variables in the model, the sample size exceeds the minimum threshold of 75 cases. However, given the modest sample size, there may be limitations in terms of statistical generalizability, and the findings should be interpreted with appropriate caution.

To enhance representativeness, the sample was drawn from six public universities in Tangshan, comprising vocational, technical, and comprehensive institutions. This range reflects the structural diversity of higher education institutions in the region and captures variations in teaching roles, faculty levels, and academic pressures. Nonetheless, because the sampling was purposive and geographically limited, results may not fully reflect the broader population of university teachers across other regions of China.

Subsequently, a Strategic Plan (SP) was implemented with 40 participating teachers. The SP focuses on diagnosing the current situation, determining the need for change, and formulating a plan for the next phase (Snyder & Bish, 1989). The SP was conducted over 12 weeks and developed based on insights from the pre-intervention data, aiming to reduce job burnout through practical, phased activities aligned with the study's key variables. The full SP implementation process is summarized in Figure 2.

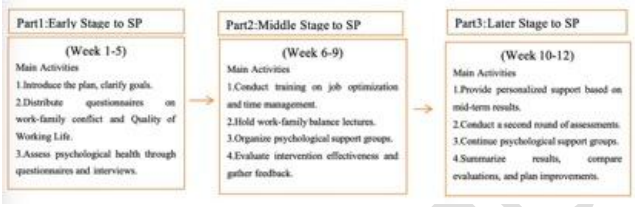

Figure 2: SP Activities

In the final stage, a survey was conducted with these 40 SP participants, generating data for a paired-sample t-test to compare the current and expected levels of job burnout. This analysis further validated the reliability of the research findings.

Ethical approval was obtained from the appropriate ethics committee, and all participants gave informed consent prior to their involvement. Participation was voluntary, and respondents were assured of anonymity, confidentiality, and the right to withdraw at any time without penalty.

3.3 Research Population, Sample Size, and Sampling Procedures

3.3.1 Research Population

The research population for this study consists of teachers from six universities in Tangshan: North China University of Science and Technology, Tangshan Normal University, Tangshan University, Tangshan Polytechnic College, Tangshan Vocational & Technical College, and Hebei Energy College of Vocation and Technology. These teachers represent various disciplines and grade levels, covering teaching positions from junior to senior levels. A total of 80 valid questionnaires were collected from these participants to analyze the impact of job characteristics, work-family conflict, perceived organizational support, quality of working life, and psychological well-being on job burnout.

3.3.2 Sample Size

The researcher randomly selected 30 teachers from six universities in Tangshan for a pilot survey and validated the questionnaire's reliability through the pilot test. Subsequently, 80 teachers from these universities were identified as the research population, resulting in 80 valid questionnaire responses. The collected data were analyzed using multiple linear regression to examine the relationships between the independent and dependent variables. Finally, 40 teachers who voluntarily participated in the Strategic Plan (SP) were selected for further analysis.

3.3.3 Sampling Procedure

The study involved multiple sampling procedures. First, for the pilot survey sampling, the researcher randomly selected 30 teachers from six universities in Tangshan to conduct a pilot survey, validating the questionnaire's reliability through a pilot test.

Next, for the formal survey sampling, the researcher identified 80 teachers from these universities as the sample for the formal study. The survey questionnaires were distributed, and 80 valid responses were collected. These data were analyzed using multiple linear regression to examine the relationships between the independent and dependent variables.

Finally, in the Strategic Plan stage sampling, the researcher randomly selected 40 teachers who voluntarily participated in the Strategic Plan (SP) for further research intervention.

3.4 Research Instruments

3.4.1 Questionnaire Design

The researcher designed the survey questionnaire following these steps:

Step 1: The primary sources for the questionnaire were identified from several openly published articles related to job burnout (Fernandes Fontes, 2020; Greenhaus & Beutell, 1985; Johari & Yahya, 2016; Lamprinou et al., 2021; Salehi et al., 2020; Winefield et al., 2012). These studies provided the theoretical foundation for the questionnaire design.

Step 2: The questionnaire was adjusted and modified to align with the specific context of university teachers in Tangshan, ensuring its relevance to the research environment.

Step 3: The Index of Item-Objective Congruence (IOC) was implemented to assess the validity of the questionnaire.

3.4.2 Questionnaire Components

The survey questionnaire in this study consists of three parts:

Part 1: Screening Questions

The first section includes screening questions designed to filter out respondents who do not meet the research population criteria, ensuring data accuracy.

Part 2: Basic Information Questions

The second section collects demographic information, including gender, age, academic discipline, and years of teaching experience. This data aids in classifying and analyzing the sample.

Part 3: Research Variable Questions

The third section contains questions related to the research variables, covering job characteristics, work-family conflict, perceived organizational support, quality of working life, and psychological well-being. These questions are designed to measure the impact of these variables on job burnout.

3.4.3 IOC Results

This study invited three professors to conduct the Index of Item-Objective Congruence (IOC) evaluation, including one professor from Thailand and two from China. During the evaluation process, the independent professors rated each questionnaire item using the following scale: +1 (Congruent), 0 (Questionable), and -1 (Incongruent).

In this study, all questionnaire items received IOC scores greater than 0.67, indicating sufficient content validity. As a result, the researcher retained all questionnaire items.

3.4.4 Reliability and Validity

The researcher randomly selected 30 teachers from six universities in Tangshan to conduct a pilot survey, asking them to complete the questionnaire and provide feedback. Subsequently, Cronbach's Alpha internal consistency reliability test was conducted to assess the reliability of the questionnaire, with an acceptable threshold of 0.7 or higher (Nunnally & Bernstein, 1994).

The table below presents the approved results, demonstrating high reliability for each construct.

Table 1: Pilot Test Result

Variable	Source of Questionnaire (Measurement Indicator)	No. of Items	Cronbach's Alpha	Strength of Association
JC	Winefield et al. (2012)	2	0.714	Acceptable
WFC	Johari and Yahya (2016)	4	0.868	Good
POS	Greenhaus and Beutell (1985)	4	0.826	Good
QWL	Salehi et al. (2020)	3	0.681	Questionable
PW	Fernandes Fontes (2020)	2	0.609	Questionable
JB	Lamprinou et al. (2021)	2	0.781	Acceptable

4. Results and Discussion

4.1 Demographic Profile

The researcher first presented the demographic profile of the entire research population (n=80), followed by the demographic profile of the teachers who participated in the Strategic Plan (n=40), as shown in Table 2.

Table 2: Demographic Profile

Entire Research Population (n=80)		Frequency	Percentage
Gender	Male	31	38.7
	Female	49	61.3
Years of	Less than one year	14	17.5

Entire Research Population (n=80)		Frequency	Percentage
Teaching	1-3 years	16	20.0
	3-6 years	19	23.7
	6-10 years	9	11.3
	More than 10 years	22	27.5
College	North China University of Science and Technology	36	45.0
	Tangshan Normal University	12	15.0
	Tangshan University	11	13.8
	Tangshan Polytechnic College	8	10.0
	Tangshan Vocational & Technical College	7	8.7
	Hebei Energy College of Vocation and Technology	6	7.5
IDI Participants (n=40)		**Frequency**	**Percentage**
Gender	Male	11	27.5
	Female	29	72.5
Years of Teaching	Less than one year	6	15.0
	1-3 years	7	17.5
	3-6 years	9	22.5
	6-10 years	4	10.0
	More than 10 years	14	35.0
College	North China University of Science and Technology	13	32.5
	Tangshan Normal University	9	22.5
	Tangshan University	6	15.0
	Tangshan Polytechnic College	5	12.5
	Tangshan Vocational & Technical College	3	7.5
	Hebei Energy College of Vocation and Technology	4	10.0

4.2 Multiple Linear Regression

The researcher conducted Multiple Linear Regression (MLR) on 80 survey responses to determine whether each hypothesis was supported. The study tested five research hypotheses, all related to the dependent variable: Job Burnout. Based on Variance Inflation Factor (VIF) analysis, multicollinearity was not a concern, as all VIF values were below 5 (Hair et al., 1995).

In the MLR model with five independent variables, the R-squared (R^2) value indicated that 43.5% of the variability in job burnout was explained by the model. Additionally, the analysis results showed that job characteristics, work-family conflict, and psychological well-being had significant impacts on job burnout, whereas perceived organizational support and quality of working life did not show statistically significant effects.

Table 3: The Multiple Linear Regression of Five Independent Variables on Job Burnout

Variable	Standardized Coefficients Beta Value	t-value	p-value	VIF	R^2
Job Characteristics	0.2652	3.012	0.004*	1.08	0.435
Work Family Conflict	0.3673	4.111	<.001*	1.12	
Perceived Organizational Support	-0.1404	-1.427	0.158	1.35	
Quality of Working Life	-0.0374	-0.371	0.712	1.43	
Psychological Well-being	-0.2967	-3.060	0.003*	1.32	
Dependent Variable: Job Burnout					

Note: p-value <0.05*

In summary, among the five hypotheses, H1, H2, and H5 were supported, indicating that Job Characteristics, Work-Family Conflict, and Psychological Well-being have a significant impact on Job Burnout. In contrast, H3 and H4 were not supported, as their p-values were greater than 0.05, indicating that Perceived Organizational Support and Quality of Working Life have no significant impact on Job Burnout.

The lack of significance for POS and QWL may be influenced by contextual and cultural factors. In some university settings, particularly in mid-sized Chinese cities, institutional support and work environment conditions may be perceived as standardized or insufficiently differentiated to affect burnout perceptions. Additionally, teachers may underreport or undervalue these aspects due to adaptation to systemic limitations or unclear communication from administrators.

Despite their baseline insignificance, POS and QWL remain theoretically important components of job well-being. They were therefore retained in the Strategic Plan intervention, allowing their influence to be re-examined under targeted institutional changes. Their inclusion ensures a holistic approach to burnout mitigation and aligns with the study's comprehensive framework.

The researcher then tested the following hypotheses related to the Strategic Plan (SP) intervention:

H7: There is a significant difference in Job Burnout between the Current situation under the Strategic Plan and the Expected outcome under the Strategic Plan.

H8: There is a significant difference in Job Characteristics between the Current and Expected situations under the Strategic Plan.

H9: There is a significant difference in Work-Family Conflict between the Current and Expected situations under the Strategic Plan.

H10: There is no significant difference in Perceived Organizational Support between the Current and Expected situations under the Strategic Plan.

H11: There is no significant difference in Quality of Working Life between the Current and Expected situations under the Strategic Plan.

H12: There is a significant difference in Psychological Well-being between the Current and Expected situations under the Strategic Plan.

4.3 Results Comparison between Current-SP and Expected-SP

The researcher conducted a paired-sample t-test analysis for all five variables to determine whether there was a significant difference in the independent and dependent variables before and after the implementation of the strategic plan (SP). The following table presents the paired-sample t-test analysis results for the five variables:

Table 4: Paired-sample T-test Results

Variable		Mean	SD	SE	p-value
Job Characteristics	Current-SP	2.54	0.624	0.0987	<.001
	Expected-SP	3.59	1.115	0.1762	
Work Family Conflict	Current-SP	1.92	0.465	0.0735	<.001
	Expected-SP	3.38	1.114	0.1761	
Perceived Organizational Support	Current-SP	3.33	0.889	0.1405	<.001
	Expected-SP	3.83	0.777	0.1228	
Quality of Working Life	Current-SP	3.48	0.886	0.1402	<.001
	Expected-SP	4.13	0.578	0.0914	
Psychological Well-being	Current-SP	2.95	1.260	0.1992	<.001
	Expected-SP	4.50	0.358	0.0566	
Job Burnout	Current-SP	2.01	0.604	0.0956	<.001
	Expected-SP	3.51	0.937	0.1482	

Table 4 illustrates the results of the paired-sample t-test analysis comparing the Current Situation Strategic Plan and the Expected Situation Strategic Plan as follows:

In terms of Job Burnout, the Current Situation Strategic Plan (M = 2.01, SD = 0.604, SE = 0.0956) and the Expected Situation Strategic Plan (M = 3.51, SD = 0.937, SE = 0.1482) showed a significant difference, with $P < 0.05$ and a mean difference of 1.5 between the two phases. Therefore, H7 was supported, indicating a significant mean difference in Job Burnout between the two phases.

In terms of Job Characteristics, the Current Situation Strategic Plan (M = 2.54, SD = 0.624, SE = 0.0987) and the Expected Situation Strategic Plan (M = 3.59, SD = 1.115, SE = 0.1762) showed a significant difference, with $P < 0.05$ and a mean difference of 1.05 between the two phases. Therefore, H8 was supported, indicating a significant mean difference in Job Characteristics between the two phases.

In terms of Work-Family Conflict, the Current Situation Strategic Plan (M = 1.92, SD = 0.465, SE = 0.0987) and the Expected Situation Strategic Plan (M = 3.38, SD = 1.114, SE = 0.1761) showed a significant difference, with $P < 0.05$ and a mean difference of 1.46 between the two phases. Therefore, H9 was supported, indicating a significant mean difference in Work-Family Conflict between the two phases.

In terms of Perceived Organizational Support, the Current Situation Strategic Plan (M = 3.33, SD = 0.889, SE = 0.1405) and the Expected Situation Strategic Plan (M = 3.83, SD = 0.777, SE = 0.1228) showed a significant difference, with $P < 0.05$ and a mean difference of 0.5 between the two phases. Therefore, H10 was supported, indicating a significant mean difference in Perceived Organizational Support between the two phases.

In terms of Quality of Working Life, the Current Situation Strategic Plan (M = 3.48, SD = 0.886, SE = 0.1402) and the Expected Situation Strategic Plan (M = 4.13, SD = 0.578, SE = 0.0914) showed a significant difference, with $P < 0.05$ and a mean difference of 0.65 between the two phases. Therefore, H11 was supported, indicating a significant mean difference in Quality of Working Life between the two phases.

In terms of Psychological Well-being, the Current Situation Strategic Plan (M = 2.95, SD = 1.260, SE = 0.1992) and the Expected Situation Strategic Plan (M = 4.50, SD = 0.358, SE = 0.0566) showed a significant difference, with $P < 0.05$ and a mean difference of 1.55 between the two phases. Therefore, H12 was supported, indicating a significant mean difference in Psychological Well-being between the two phases.

According to the paired-sample t-test results, the researcher arrived at the following conclusions:

These findings provide a novel contribution by demonstrating that even variables initially found to be statistically non-significant, Perceived Organizational Support and Quality of Working Life, can be meaningfully improved through targeted interventions. This challenges previous assumptions in the literature that institutional or environmental factors are static or less responsive in burnout interventions, particularly in hierarchical or resource-constrained settings such as regional Chinese universities. By showing measurable improvements in POS and QWL, the study underscores the value of structured strategic planning in modifying both perceptions and outcomes among faculty.

Furthermore, the demographic data support the robustness of the findings. Among the 40 SP participants, a substantial majority were female (72.5%) and over one-third had more than 10 years of teaching experience. These characteristics may have contributed to heightened sensitivity to institutional factors such as workload, support, and well-being. The diversity of institutional representation across six universities, ranging from technical to comprehensive institutions, also enhances the reliability of

the results and the applicability of the strategic framework across varied academic environments.

The contrast in mean scores between Current-SP and Expected-SP across all variables confirms both internal consistency and framework validity. The consistency of significance across a relatively heterogeneous demographic profile suggests that the intervention addressed common structural issues rather than isolated personal or institutional factors, strengthening the argument for replicability.

In summary, all six hypotheses (H7-H12) were supported, confirming significant differences between the current and expected conditions. Teachers reported substantial improvements in job characteristics, reduced work-family conflict, greater organizational support, enhanced quality of working life, improved psychological well-being, and reduced job burnout following the intervention.

5. Conclusions and Recommendation

5.1 Conclusions

This study examined the impact of five independent variables, Job Characteristics, Work-Family Conflict, Perceived Organizational Support, Quality of Working Life, and Psychological Well-being, on the dependent variable, Job Burnout. A comprehensive research design, data collection methods, and analytical approaches were employed to derive meaningful conclusions.

The research design incorporated the Index of Item-Objective Congruence (IOC) to validate the measurement instruments and Cronbach's Alpha in a pilot test to ensure reliability. This rigorous measurement approach enhanced the credibility of the study. Data were collected from 80 teachers across six public universities in Tangshan and analyzed using multiple linear regression to examine the relationships between the independent and dependent variables. Additionally, a 12-week Strategic Plan (SP) intervention was implemented, involving 40 teachers selected for the experiment. Data from the Current Situation Strategic Plan and Expected Situation Strategic Plan were analyzed using a paired-sample t-test for comparative evaluation.

The study results indicated that Job Characteristics, Work-Family Conflict, Perceived Organizational Support, Quality of Working Life, and Psychological Well-being all exhibited significant differences between the Current Situation and Expected Situation. These findings suggest that excessive workload, difficulties in balancing work and family responsibilities, lack of organizational support, and poor quality of working life and psychological well-being are key contributors to teacher stress and dissatisfaction.

Theoretically, the study contributes to the literature by validating the relevance of the Job Demands-Resources (JD-R) model in a regional Chinese higher education setting, extending its application to both pre- and post-intervention contexts. While previous studies have highlighted the role of job demands and psychological well-being, this research demonstrates that structured interventions can also meaningfully affect institutional and environmental variables. This broadens the conceptual understanding of burnout as a condition responsive not only to personal resilience but also to organizational design.

Importantly, although Perceived Organizational Support and Quality of Working Life were not statistically significant in the initial regression analysis, their significance emerged in the intervention phase. This indicates that these factors may be context-sensitive and initially undervalued by faculty in traditional academic cultures. Their later responsiveness to institutional changes underscores the potential for improving perceived support and workplace quality through deliberate action, even when such variables appear negligible at baseline.

Practically, the results reinforce that both job demands and job resources must be addressed concurrently to manage burnout effectively. Universities should not underestimate the influence of institutional culture and perceived support structures, even if they are not initially identified as key predictors. The shift from insignificance to significance through intervention illustrates how perception can evolve when institutions take proactive roles in addressing burnout-related stressors.

In conclusion, this study affirms the utility of a Strategic Plan (SP) as a structured and measurable approach to reducing job burnout among university faculty. By capturing both pre- and post-intervention dynamics, it provides a more nuanced understanding of how job-related stress can be mitigated through multifaceted organizational strategies. These insights offer a valuable foundation for developing long-term frameworks that align academic expectations with faculty well-being.

5.2 Recommendations

This study proposes recommendations to reduce job burnout among university teachers by optimizing job characteristics, alleviating work-family conflict, enhancing organizational support, improving the quality of working life, and strengthening psychological well-being. Burnout is often linked to excessive workload, poor task distribution, lack of institutional support, and high psychological stress. Implementing systematic interventions can improve work conditions and job satisfaction, ultimately benefiting higher education quality.

First, optimizing job characteristics is essential for minimizing burnout driven by excessive task demands. Universities should restructure job responsibilities to ensure equitable distribution across teaching, research, and administrative duties. Minimizing unnecessary obligations and providing dedicated administrative support can help alleviate workload pressures. Task prioritization systems and clearer role definitions should be institutionalized to prevent peak-period stress.

Second, work-family conflict can be addressed by fostering a culture of work-life balance. Flexible teaching schedules, remote work policies, and clear after-hours expectations can reduce role conflict. Institutions should strengthen communication channels between faculty and administrators to identify individual needs and provide tailored accommodations, especially for faculty with caregiving responsibilities.

Third, although Perceived Organizational Support (POS) was initially not statistically significant, its improvement post-intervention suggests that meaningful change is possible through deliberate efforts. Universities should invest in mentorship programs, transparent communication strategies, performance recognition systems, and career development opportunities. These initiatives can strengthen faculty trust, motivation, and institutional commitment.

Fourth, improving the Quality of Working Life (QWL) is particularly important in traditionally under-resourced or bureaucratically rigid environments. Despite its pre-intervention insignificance, QWL responded well to change, indicating that institutional investments in teaching infrastructure, faculty lounges, simplified funding access, and professional autonomy can substantially enhance workplace satisfaction. Interdisciplinary collaboration and shared decision-making should also be encouraged to cultivate an inclusive and supportive culture.

Fifth, strengthening psychological well-being remains foundational to burnout prevention. Universities should offer confidential counseling services, regular stress-reduction workshops, peer support circles, and resilience training. Integrating emotional intelligence and self-care modules into faculty development initiatives can help staff develop healthier coping mechanisms.

Overall, these recommendations reflect the dynamic and multifactorial nature of job burnout. The study's intervention phase demonstrated that even variables perceived as less influential, like POS and QWL, can be transformed through targeted institutional strategies. To maintain momentum, universities should monitor faculty feedback, adapt policies to evolving needs, and foster a long-term culture of care and support. Doing so will ensure not only reduced burnout, but also greater faculty engagement, retention, and instructional effectiveness.

5.3 Limitation and Further Study

This study contributes to understanding job burnout among university teachers and implementing targeted interventions. However, several limitations should be addressed in future research.

The sample was limited to six universities in Tangshan, restricting generalizability to other regions and institution types, such as elite universities or vocational colleges. Expanding the study scope would improve external validity.

Reliance on self-reported surveys and interviews may introduce bias due to social desirability or subjective perception. Future research should incorporate behavioral observations, longitudinal tracking, or experimental designs for more objective assessments. Additionally, the 12-week intervention was relatively short, making it difficult to assess long-term effects. Extended interventions and follow-up studies are needed to evaluate sustainability.

Also, the study focused on five key factors—job characteristics, work-family conflict, perceived organizational support, quality of working life, and psychological well-being—but did not account for personality traits, teaching styles, teamwork, or leadership. Future studies should integrate broader variables for a more comprehensive burnout model.

Lastly, interventions were designed mainly from administrators' and teachers' perspectives, without considering students, administrative staff, or institutional leadership. Since burnout is shaped by broader institutional dynamics, future research should take a systemic approach, integrating multiple perspectives. Comparative studies across universities could identify best practices suited to different educational contexts.

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