

The Impact of Work Stress and Perceived Social Support on Burnout Dimensions Among Chinese University Lecturers

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Received: March 2, 2025 Accepted: May 2, 2025 Published: June 3, 2025

doi:10.5296/ijssr.v13i2.22683 URL: <https://doi.org/10.5296/ijssr.v13i2.22683>

Abstract

Researchers across the globe have increasingly focused on teacher burnout, recognizing that educators are particularly vulnerable to high levels of work-related stress and burnout. This study examines the effects of work stress and perceived social support on burnout dimensions, explore the mediating role of perceived social support in the relationship between job stress and burnout. Questionnaires were distributed to 326 lecturers at Shanxi Medical University in China. Descriptive statistics, ANOVA, Structural Equation Modeling (SEM), and Bootstrap analysis were employed to analyze the relationships between work stress, burnout, and social

support. The findings indicated job security, teaching guarantees, and interpersonal relationships significantly influence burnout dimensions, whereas workload and job demands did not impact burnout dimensions. Perceived social support significantly affect reduced personal accomplishment, but has no effect on emotional exhaustion and depersonalization. Furthermore, perceived social support partially mediates the relationship between job stress and burnout dimensions among lecturers. The results suggest that providing lecturers with adequate social support could be an effective strategy to avoid burnout and improve overall well-being.

Keywords: work stress, burnout, perceived social support, university Lecturers, Chinese

1. Introduction

In recent years, society and educational institutions worldwide have shown increased concern for teachers' mental health, recognizing them as one of the most vulnerable professionals' groups. If teachers' occupational stress is not addressed promptly, they are at higher risk of experiencing burnout. Burnout is a prevalent issue among teachers, receiving extensive and continuous attention worldwide. Burnout is characterized as "a psychological syndrome brought on by extended exposure to ongoing interpersonal pressures at work" (Maslach & Leiter, 2016). It develops over time as work becomes increasingly unpleasant, unfulfilling, and lacking in rewards. This phenomenon is commonly categorized into three dimensions: emotional exhaustion, diminished personal accomplishment, and a sense of cynicism or detachment from one's professional role (Maslach, Schaufeli, & Leiter, 2001).

Across various cultural and educational contexts, teaching is often seen as one of the most challenging and high-pressure careers. In the United Kingdom, it ranks among the most stressful occupations out of 26 surveyed professions (Johnson et al., 2005). Similarly, a study by Kyrian et al. (2020) found that over one-third of teachers in Ukraine reported a high level of burnout. In Saudi Arabia, 50.1% of teachers report mild burnout, followed by moderate burnout at 14.9% and severe burnout at 4.6% (Alqassim et al., 2022). According to García-Arroyo et al. (2019), educators from 35 nations found that teachers in China exhibited the second-highest degree of emotional burnout. Burnout has become a pressing issue in China, affecting approximately 1.6 million educators within the nation's educational system and drawing significant attention from researchers (Freudenberger, 1974; Cheng et al., 2023). These findings demonstrate that teacher burnout is a global concern, cutting across different educational systems and regions. The widespread occurrence of burnout highlights the pressing need for effective strategies to alleviate its effects and improve teachers' well-being.

Exploring teacher burnout and the underlying factors contributing to it has garnered significant attention. Various demographic variables, including gender (Redondo-Flórez et al., 2020; Carroll et al., 2022; Zheng, 2022), locality (Kant & Shanker, 2021), age (Wang et al., 2020), marital status (Zhou et al., 2019), and work experience (Wang et al., 2020; Kyrian et al., 2020; Wang & Lin, 2022), may contribute to a vulnerability to burnout. In addition to individual factors, job demands such as heavy workloads, work-family conflict, and work-related pressures (Rohani & Dayer, 2019; Kaiser et al., 2021) plays a significant role. Organizational factors, including support, recognition, and honor, also significantly contribute to burnout (Akkaya & Serin, 2020; Coyle et al., 2020; Siyum, 2023). In China, teacher burnout is closely related to policies in higher education. The rapid expansion of the higher education and the continuous growth in university enrollments have created intense pressures as institutions strive to achieve world-class status. Lecturers, who play a crucial role in the learning process, face numerous challenges, including publishing pressure, the need to secure funding, complex interpersonal relationships, job instability, high psychological demands, inadequate rewards, mental overload, and the pressure to meet the expectations of students and their parents (Serin, 2017; Ofei-Dodoo et al., 2019; Matos et al., 2022).

Teacher burnout has been shown to severely affect both physical and mental health (Khamisa et

al., 2016; Shao, 2022; Agyapong et al., 2022), diminish job performance (Mohammed et al., 2020; Song, 2022), and lower job satisfaction (Boamah et al., 2017; Alqassim et al., 2022). It is also associated with higher turnover rates (Alqassim et al., 2022), decreased student learning and achievement (Matos et al., 2022), and reduced organizational effectiveness (Mohammed et al., 2020). In extreme cases, burnout can lead to early retirement or even suicide (Christopher et al., 2020; Queiros et al., 2020; Harvey et al., 2021). Considering the adverse effects of teacher burnout on individuals, students, organizations, and society, it is essential to prioritize understanding the factors that result in this issue.

Research has consistently demonstrated a positive association between work stress and the dimensions of burnout in educational settings (Khan et al., 2018; Wang & Lin, 2022; Chirico et al., 2022a; Chirico et al., 2022c). However, Xu and Yang (2021) observed that while work stress significantly affected exhaustion and inefficacy, it had no impact on cynicism. This highlights ongoing debate in the literature about how work stress influences the three dimensions of burnout. Exploring the specific impacts of work stress on various burnout dimensions is therefore essential. Furthermore, an increasing body of research suggests that perceived social support is an effective strategy for managing work stress and burnout across professions (Cobb, 1976; Cohen & Wills, 1985; House et al., 1988). In addition, many studies have also explored how perceived social support affects work stress and job burnout across different professions. For instance, it has been discovered that among bank workers, perceived social support progressively mediates the link between work stress and burnout (Wu et al., 2021). In the educational context, it has been demonstrated that social support considerably moderates the association between stressors and mental health among middle school teachers (Gan, 2022). Moreover, perceived social support has been found to partially mediate the association between work stress and job burnout among elementary or middle school teachers (Zhao & Chen, 2020). Taylor and Frechette (2022) found that perceived social support negatively correlates with burnout, helping to relieve work stress and reduce the high burnout levels among faculty. Additionally, support from friends, family, coworkers, and even pets has been found beneficial for university lecturers in managing work stress and preventing burnout in higher education (Kolomitro et al., 2020). Nevertheless, no previous studies have explored the use of perceived social support to mitigate the impact of work stress on burnout among university lecturers in China. Therefore, this research seeks to address this gap by examining how social support can alleviate the effects of work stress on burnout. The findings of this study hold significant implications for university lecturers, as they can help reduce job stress and burnout, promote physical and mental well-being, enhance productivity, and lower turnover intentions.

2. Theoretical Framework

2.1 Work Stress

Work stress is the condition of physical and psychological tension that teachers experience when external environmental factors affect their well-being and effectiveness in pedagogy (Wu et al., 2020). Teacher stress is primarily understood as an adverse emotional reaction, such as anger or frustration, often accompanied by other responses correlated with the stressor. This

response can be emotional, physiological, or behavioral in nature (Kyriacou, 1977). Numerous studies have shown that various factors result in work stress, with the primary causes being role stress and work overload (Miller et al., 1990; Starnaman & Miller, 1992). Prolonged teacher stress has been associated with several negative outcomes, including burnout, absenteeism, low job performance, role ambiguity, role conflict, high attrition rates and a decline in teaching quality, behaviors and overall quality of life (Kim et al., 2019; Wu, 2020; Shao, 2022; Wang & Lin, 2022; Chirico et al., 2022a; Chirico et al., 2022c; Cheng et al., 2023). Chronic stress can result in inappropriate anger, heightened consumption of alcohol and drugs (Maslach et al., 2001), and may lead to excessive anxiety, mental exhaustion, and burnout, while also predicting increased depression (Agyapong et al., 2022).

2.2 Burnout

Burnout refers to a psychological reaction to stress at work (Maslach, 1982; Maslach et al., 2001). Burnout is operationally defined as emotional exhaustion, depersonalization and reduced personal accomplishment (Maslach, 1982). Emotional exhaustion refers to people who are dealing with stressors approaching, or over, their comfortable limits. Exhaustion is the most widely recognized as a mandatory criterion for burnout. Depersonalization is described as people who tend to put themselves apart from other people, and regard individuals as objects or things. Personal accomplishment is described as people who think they are performing well on worthwhile tasks. According to Spaniol (1979), mild burnout typically involves short-term feelings of irritability, tiredness, anxiety, or frustration. In moderate burnout, these symptoms become more prolonged, lasting for a minimum of two weeks. Severe burnout, on the other hand, can escalate to include physical ailments like ulcers, persistent back pain, and frequent migraines.

2.3 Social Support

According to Wills (1991), social support refers to the belief that one is loved and valued by others, respected and esteemed, and belongs to a social network characterized by mutual responsibilities and support. In a nutshell, social support refers to the belief that these resources are accessible in case they be needed. It has been consistently identified as an effective coping strategy for managing burnout (Greenglass, et al., 2020; Al-Mansour, 2021; Winding, 2022). According to Miller (2006), three types of social support can be distinguished: emotional, informational, and instrumental support. Perceived social support, defined as an individual's subjective evaluation of the assistance they receive from their social environment, is typically divided into three types: family support, friend support, and support from a significant other (Zimet et al., 1988). Prior research has underlined the positive impact of social support on health outcomes. For instance, Grey et al. (2020) observed that social support is significantly connected with reduced risks of depression, improved sleep quality, and fewer anxiety symptoms (Yu et al., 2020). According to research, social support can significantly lower the likelihood of teacher burnout (Maas et al., 2021).

2.4 Current Study

This study seeks to investigate the role of perceived social support in alleviating the impact of

work-related stress on burnout among university lecturers in China. While extensive research has focused on burnout among primary and secondary school teachers, the mediating role of social support, especially within higher education, remains underexplored. The research aims to analyze how work stress and perceived social support influence burnout dimensions and to assess whether perceived social support can buffer the negative effects of work stress on burnout. This study is significant as it provides insights into how social support can be leveraged to address burnout among university lecturers, a critical issue in China's higher education system. The findings will inform policymakers and university administrators on strategies to reduce burnout, enhance well-being, and improve job satisfaction among educators, ultimately benefiting the quality of education.

Drawing on the theoretical and empirical evidence discussed above, the hypotheses and the proposed model are presented below:

Hypothesis 1: The relationship is significant between work stress and burnout dimensions of the university lecturers.

Hypothesis 2: The relationship is significant between perceived social support and burnout dimensions of the university lecturers.

Hypothesis 3: Perceived social support mediates the effect of work stress on burnout dimensions among university lecturers.

3. Methods

This quantitative study examines the association between work stress, burnout, and perceived social support among university lecturers at Shanxi Medical University in China using a cross-sectional online questionnaire with three measures. The time frame for this poll was July 10–August 31, 2024. To guarantee accuracy and cultural relevance, the survey instruments were translated into Chinese utilizing a translation and back-translation procedure.

3.1 Participants

The study included 326 full-time lecturers from Shanxi Medical University in Shanxi Province. The demographic characteristics of the study participants are summarized in Table 1. Out of the 326 lecturers who took part in the study, 192 (58.9%) were female and 134 (41.1%) were male. In terms of age distribution, 157 lecturers (48.2%) fell within the 25–30 age range, 113 lecturers (34.7%) were between 31–35, 23 lecturers (7.1%) were aged 36–40, and 33 lecturers (10.1%) were 41 years or older. Regarding the highest educational degree obtained by the participants, the majority (52.1%) held a master's degree, while 43% had obtained a doctorate's degree, and 4.9% had a bachelor's degree as their latest degree. The participants were evenly split between single (50%, $n = 163$) and married (50%, $n = 163$). Monthly income was distributed as follows: the largest group earned between 7,000 and 8,000 RMB ($n = 127$; 39%), followed by those earning 4,000 to 5,000 RMB ($n = 78$; 23.9%), 6,000 to 7,000 RMB ($n = 64$; 19.6%), and 5,000 to 6,000 RMB ($n = 57$; 17.5%). Most lecturers had 1–5 years of teaching experience ($n = 213$; 65.3%), with only 7.4% ($n = 24$) having less than one year of teaching experience.

Table 1. Information Characteristics of Respondents

Background Information	Features	Number of cases	Proportion (%)
Gender	Female	192	58.9%
	Male	134	41.1%
Age	25–30	157	48.2%
	31–35	113	34.7%
	36–40	23	7.1%
	41–45	33	10.1%
Education Level	Bachelor's Degree	16	4.9%
	Master's Degree	170	52.1%
	Doctorate's Degree	140	43%
Marital Status	Single	163	50%
	Married	163	50%
Income	4000≤X≤5000RMB	78	23.9%
	5000<X≤6000RMB	57	17.5%
	6000<X≤7000RMB	64	19.6%
	7000<X≤8000RMB	127	39%
Teaching Age	6month <X≤1 year	24	7.4%
	1year <X≤5 years	213	65.3%
	6–10 years	31	9.5%
	11–15 years	31	9.5%
	16–20 years	27	8.3%

3.2 Measures

3.2.1 Burnout

In this study, the Maslach Burnout Inventory-Education Survey (MBI-ES) was used to evaluate burnout across three dimensions: emotional exhaustion, depersonalization, and reduced personal accomplishment (Maslach et al., 1996). The 22-item instrument required participants to rate each statement on a seven-point scale, from 1 (never) to 7 (every day). The internal consistency of the MBI-ES, as reflected by Cronbach's alpha, was 0.948.

3.2.2 Perceived Social Support

To evaluate university lecturers' perceived social support, the Multidimensional Scale of Perceived Social Support (MSPSS) was employed (Zimet et al., 1988). The scale consists of 12 items divided into three subscales: family support (4 items), friend support (4 items), and significant other support (4 items). Participants rated each item on a seven-point Likert scale, from 1 (very strongly disagree) to 7 (very strongly agree). Total scores ranged from 12 to 84, reflecting the degree of perceived social support. In this study, the MSPSS demonstrated high reliability, with a Cronbach's alpha of 0.938.

3.2.3 Work Stress

The College Teacher Work Stress Rating Scale, developed by Li (2005), was used to assess the work stress of Chinese university teachers. This 24-item scale evaluates five dimensions of work stress: job security (8 items), teaching support (5 items), interpersonal relationships (4 items), workload (3 items), and job demands (4 items). Respondents indicated whether they had experienced each stressor during the current academic year. For each item, teachers rated their stress levels on a four-point scale, with 1 representing “no stress at all” and 4 representing “the most stressful event they had ever experienced.” In the current investigation, the scale’s Cronbach’s alpha was 0.878.

3.3 Procedure and Analysis

The data-collecting process took approximately two months. The questionnaire took about 30 minutes to complete. Participants received word of appreciation, but no reward for their participation. Summary scores were calculated for each lecturer in the sample based on work stress scale, burnout scale and perceived social support scale. The data were analyzed using SPSS version 26.0 and AMOS version 24.0 to investigate the impact of work stress and perceived social support on burnout dimensions among university lecturers. Structural equation modeling (SEM) was applied to assess the relationships between work stress, perceived social support, and burnout dimensions in Chinese university lecturers. Additionally, bootstrap analysis was used to explore the mediating role of perceived social support in the relationship between work stress and burnout dimensions.

4. Results

4.1 Structural Equation Modeling Results

Structural Equation Modeling (SEM) was used to test the mediation effects of perceived social support through path analysis based on the measurement model (Figure 1). Following the mediation analysis procedure proposed by Baron and Kenny (1986), perceived social support was incorporated as a mediating variable in the structural model to evaluate its role in the association between work stress and burnout. The SEM results indicated a good model fit: CMIN/DF = 1.503, RMSEA = 0.039, CFI = 0.943, IFI = 0.944, NFI = 0.849, PGFI = 0.748, and PNFI = 0.790.

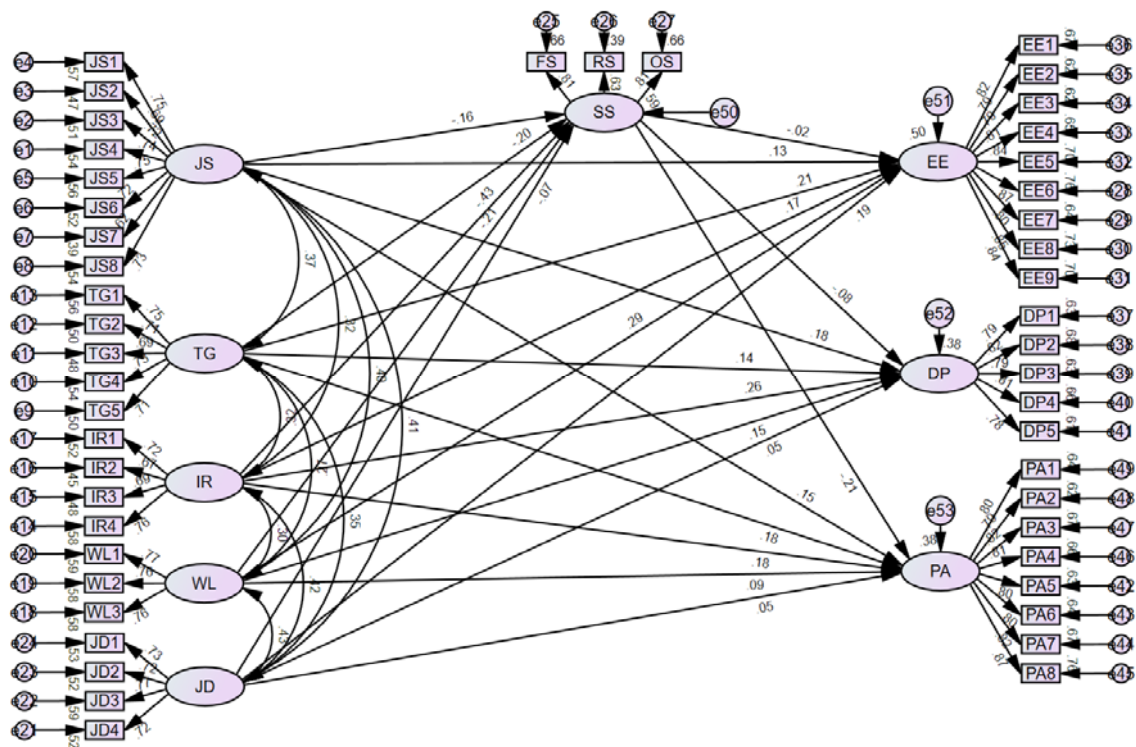


Figure 1. The Standardized Regression weights for Every Path in the Model

4.2 Testing the Effects of Work Stress on the Three Components of Burnout

4.2.1 Effect of Job Security on Burnout Dimensions

The path highlights the direct effects of job security (JD) on different dimensions of burnout. As shown in Table 2, JD significantly influences emotional exhaustion (EE) ($\beta = .132$, $p < .05$), depersonalization (DP) ($\beta = .181$, $p < 0.01$), and reduced personal accomplishment (PA) ($\beta = .146$, $p < .05$). Overall, job security positively impacts all three burnout dimensions.

Table 2. The Direct Effects of Job Security on Burnout Dimensions

Hypothesis	Path	Estimate	S.E.	C.R.	P
Job security has a significant effect on emotional exhaustion.	EE<--- JS	.132	0.092	2.258	*
Job security has a significant effect on depersonalization.	DP<---JS	0.181	0.094	2.708	**
Job security has a significant effect on reduced personal accomplishment.	PA<---JS	0.146	0.089	2.282	*

Note. *: $p < 0.05$; **: $p < 0.01$; ***: $p < 0.001$.

4.2.2 Effect of Teaching Guarantee on Burnout Dimensions

The results also show that teaching guarantee (TG) significantly impacts all three burnout dimensions. As presented in Table 3, teaching guarantee has a strong effect on EE ($\beta = .206$, $p < .001$), teaching guarantee also significantly influences DP ($\beta = .143$, $p < .05$) and PA ($\beta = .177$, $p < .01$). Therefore, ensuring teaching guarantees can significantly reduce burnout in lecturers across these key dimensions.

Table 3. The Direct Effects of Teaching Guarantee on Burnout Dimensions

Hypothesis	Path	Estimate	S.E.	C.R.	P
Teaching guarantee has a significant effect on emotional exhaustion.	EE<--- TG	0.206	0.096	3.457	***
Teaching guarantee has a significant effect on depersonalization.	DP<---TG	0.143	0.096	2.146	*
Teaching guarantee has a significant effect on reduced personal accomplishment.	PA<---TG	0.177	0.092	2.74	**

Note. *: $p < 0.05$; **: $p < 0.01$; ***: $p < 0.001$.

4.2.3 Effect of Interpersonal Relationship on Burnout Dimensions

The direct effects of interpersonal relationships (IR) on burnout dimensions are also substantial. Interpersonal relationship has a significant effect on EE ($\beta = .167$, $p < .05$), DP ($\beta = .256$, $p < .01$), and PA ($\beta = .178$, $p < .05$), as shown in Table 4. In summary, interpersonal relationships significantly affect all three burnout dimensions. These results suggest that improving interpersonal relationships can help mitigate burnout among lecturers across these key dimensions.

Table 4. The Direct Effects of Interpersonal Relationship on Burnout Dimensions

Hypothesis	Path	Estimate	S.E.	C.R.	P
Interpersonal relationship has a significant effect on emotional exhaustion.	EE<--- IR	0.167	0.116	2.207	*
Interpersonal relationship has a significant effect on depersonalization.	DP<---IR	0.256	0.121	2.932	**
Interpersonal relationship has a significant effect on reduced personal accomplishment.	PA<---IR	0.178	0.113	2.131	*

Note. *: $p < 0.05$; **: $p < 0.01$; ***: $p < 0.001$

4.2.4 Effect of Workload on Burnout Dimensions

As shown in Table 5, workload has a strong and significant effect on EE ($\beta = .292$, $p < .001$) and DP ($\beta = .150$, $p < .05$). However, workload does not have a statistically significant effect on PA, as shown by a p-value of 0.204. Therefore, while workload is a key factor driving EE and DP, but it does not directly affect PA.

Table 5. The Direct Effects of Workload on Burnout Dimensions

Hypothesis	Path	Estimate	S.E.	C.R.	P
Workload has a significant effect on emotional exhaustion.	EE<--- WL	0.292	0.101	4.423	***
Workload has a significant effect on depersonalization.	DP<---WL	0.15	0.1	2.057	*
Workload has a significant effect on reduced personal accomplishment.	PA<---WL	0.088	0.093	1.271	0.204

Note. *: $p < 0.05$; **: $p < 0.01$; ***: $p < 0.001$.

4.2.5 Effect of Job Demands on Burnout Dimensions

Finally, the path analysis of job demands (JD) shows that job demands have a significant effect on EE ($\beta = .185$, $p < .01$), as presented in Table 6. However, job demands do not have statistically significant effects on DP or PA ($p > 0.05$ for both). This suggests that while increased job demands primarily impact emotional exhaustion, they do not significantly affect other burnout dimensions like depersonalization or feelings of reduced personal accomplishment.

Table 6. The Direct Effects of Job Demands on Burnout Dimensions

Hypothesis	Path	Estimate	S.E.	C.R.	P
Job demands has a significant effect on emotional exhaustion.	EE<--- JD	0.185	0.1	2.926	**
Job demands has a significant effect on depersonalization.	DP<---JD	0.051	0.101	0.715	0.475
Job demands has a significant effect on reduced personal accomplishment.	PA<---JD	0.048	0.095	0.703	0.482

Note. *: $p < 0.05$; **: $p < 0.01$; ***: $p < 0.001$.

Overall, job security, teaching guarantees, and interpersonal relationships significantly influence all dimensions of burnout, whereas workload and job demand primarily impact emotional exhaustion. Interventions aimed at improving job security, providing teaching guarantees, and fostering interpersonal relationships may help reduce overall burnout among lecturers. Thus,

hypothesis 1 was not supported.

4.3 Testing the Effects of Perceived Social Support on the Three Components of Burnout

This research also explores the direct effects of perceived social support (SS) on burnout dimensions. As shown in Table 7, perceived social support has a significant negative effect on PA ($\beta = -0.208$, $p < .05$). However, perceived social support does not have a significant effect on EE ($\beta = -0.024$, $p > .05$) and DP ($\beta = -0.079$, $p > .05$). This suggests that while higher levels of perceived social support may not significantly impact emotional exhaustion and depersonalization, it plays a crucial role in improving lecturers' sense of personal accomplishment. By fostering a greater sense of success and fulfillment in their professional roles, social support can help mitigate feelings of inadequacy and enhance their overall job satisfaction. Therefore, hypothesis 2 was not supported.

Table 7. The Direct Effects of Perceived Social Support on Burnout Dimensions

Hypothesis	Path	Estimate	S.E.	C.R.	P
Social support has a significant effect on emotional exhaustion.	EE<---SS	-0.024	0.096	-0.257	0.797
Social support has a significant effect on depersonalization.	DP<---SS	-0.079	0.099	-0.74	0.459
Social support has a significant effect on reduced personal accomplishment.	PA<---SS	-0.208	0.096	-1.966	*

Note. *: $p < 0.05$; **: $p < 0.01$; ***: $p < 0.001$.

4.4 Testing the Mediation Effects of Perceived Social Support

4.4.1 Perceived Social Support Mediates the Influence of Work Stress on Emotional Exhaustion

As shown in Table 8, the Bootstrap estimate demonstrated a significant mediating effect of perceived social support on the relationship between various work stressors and EE. For job security, the indirect effect was 0.211 (SE = 0.044, 95% CI = 0.133 to 0.306), indicating partial mediation, as the confidence interval does not include zero. Similarly, the mediating effect between teaching guarantee and emotional exhaustion was 0.2 (SE = 0.039, 95% CI = 0.13 to 0.282), also suggesting partial mediation. For interpersonal relationship, the indirect effect was 0.257 (SE = 0.048, 95% CI = 0.166 to 0.356, $p < 0.001$), confirming a partial mediation. The mediating effect for workload was 0.166 (SE = 0.034, 95% CI = 0.105 to 0.235, $p < 0.001$), and for job demands, it was 0.185 (SE = 0.037, 95% CI = 0.117 to 0.263, $p < 0.001$), both indicating partial mediation. Therefore, these findings suggests that perceived social support serves as a partial mediator, significantly reducing the impact of work stress on emotional exhaustion.

Table 8. The Mediating Effect of Work Stress on Emotional Exhaustion through Perceived Social Support

Variable	Type of effect	Effect	SE	t	P	LLCI	ULCI
Job Security	Total effect	0.642	0.076	8.485	0	0.493	0.79
	Direct effect	0.43	0.078	5.495	0	0.276	0.584
	Indirect effect	0.211	0.044			0.133	0.306
Teaching Guarantee	Total effect	0.577	0.073	7.893	0	0.434	0.721
	Direct effect	0.378	0.074	5.074	0	0.231	0.525
	Indirect effect	0.2	0.039			0.13	0.282
Interpersonal Relationship	Total effect	0.548	0.074	7.371	0	0.401	0.694
	Direct effect	0.291	0.081	3.857	0	0.131	0.45
	Indirect effect	0.257	0.048			0.166	0.356
Workload	Total effect	0.618	0.065	9.493	0	0.49	0.746
	Direct effect	0.452	0.067	6.793	0	0.321	0.583
	Indirect effect	0.166	0.034			0.105	0.235
Job Demands	Total effect	0.644	0.069	9.315	0	0.508	0.78
	Direct effect	0.459	0.072	6.398	0	0.318	0.6
	Indirect effect	0.185	0.037			0.117	0.263

4.4.2 Perceived Social Support Mediates the Influence of Work Stress on Depersonalization

As shown in Table 9, the Bootstrap estimates indicate a significant mediating effect of perceived social support on the relationship between work stressors and depersonalization. For job security, the indirect effect was 0.207 (SE = 0.042, 95% CI = [0.132, 0.298]), demonstrating partial mediation. Perceived social support also significantly mediated the relationship between teaching guarantee and depersonalization (coefficient = 0.205, SE = 0.041, 95% Bootstrap CI = [0.133, 0.291]; $p < 0.001$), emphasizing its role in alleviating depersonalization. The effect was also significant for interpersonal relationships, with a coefficient of 0.23 (SE = 0.045, 95% Bootstrap CI = [0.147, 0.323]; $p < 0.001$). The mediating effect of perceived social support was observed for workload, with an indirect effect of 0.186 (SE = 0.035, 95% CI = [0.121, 0.259]), confirming partial mediation. Lastly, the relationship between job demands and depersonalization was partially mediated by perceived social support (indirect effect = 0.208, SE = 0.038, 95% CI = [0.138, 0.287]). Therefore, perceived social support serves as a partial mediator, significantly reducing the impact of work stress on depersonalization.

Table 9. The Mediating Effect of Work Stress on Depersonalization through Perceived Social Support

Variable	Type of effect	Effect	SE	t	P	LLCI	ULCI
Job Security	Total effect	0.564	0.075	7.533	0	0.417	0.712
	Direct effect	0.357	0.078	4.597	0	0.204	0.51
	Indirect effect	0.207	0.042			0.132	0.298
Teaching	Total effect	0.451	0.073	6.144	0	0.307	0.596
Guarantee	Direct effect	0.247	0.075	3.307	0.001	0.1	0.393
	Indirect effect	0.205	0.041			0.133	0.291
Interpersonal	Total effect	0.553	0.072	7.715	0	0.412	0.694
Relationship	Direct effect	0.323	0.079	4.102	0	0.168	0.479
	Indirect effect	0.23	0.045			0.147	0.323
Workload	Total effect	0.414	0.068	6.118	0	0.281	0.547
	Direct effect	0.228	0.068	3.334	0.001	0.094	0.363
	Indirect effect	0.186	0.035			0.121	0.259
Job Demands	Total effect	0.442	0.072	6.183	0	0.301	0.583
	Direct effect	0.234	0.073	3.193	0.002	0.09	0.379
	Indirect effect	0.208	0.038			0.138	0.287

4.4.3 Perceived Social Support Mediates the Influence of Work Stress on Reduced Personal Accomplishment

The results in Table 10 demonstrate that perceived social support serves as a partial mediator in the association between various dimensions of work stress and reduced personal accomplishment. For job security, the indirect effect was 0.214 ($p < .001$, $CI = [0.139, 0.301]$), indicating that perceived social support helps buffer the negative impact of job security stress on reduced personal accomplishment. Similarly, teaching guarantee shows an indirect effect of 0.199 ($p < .001$, $CI = [0.131, 0.279]$) on reduced personal accomplishment, confirming the significant mediating role of perceived social support in alleviating this relationship. Perceived social support also mediates the relationship between interpersonal accomplishment and reduced personal accomplishment, with an indirect effect of 0.24 ($p < .001$, $CI = [0.16, 0.338]$). Similarly, perceived social support mediated the effect of workload on reduced personal accomplishment (coefficient = 0.196, 95% Bootstrap $CI = [0.13, 0.274]$; $p < 0.001$). Additionally, the indirect effect of perceived social support on the relationship between job demands and reduced personal accomplishment was 0.214 ($p < .001$, $CI = [0.141, 0.300]$), suggesting that social support significantly mitigates the adverse impact of job demands on personal accomplishment. Overall, perceived social support consistently serves as a partial mediator, effectively reducing the negative effects of job security, workload, and job demands on reduced personal accomplishment.

Table 10. The Mediating Effect of Work Stress on Reduced Personal Accomplishment through Perceived Social Support

Variable	Type of effect	Effect	SE	t	P	LLCI	ULCI
Job Security	Total effect	0.559	0.074	7.502	0	0.412	0.705
	Direct effect	0.345	0.077	4.488	0	0.194	0.496
	Indirect effect	0.214	0.041			0.139	0.301
Teaching Guarantee	Total effect	0.51	0.072	7.112	0	0.369	0.651
	Direct effect	0.311	0.073	4.273	0	0.168	0.455
	Indirect effect	0.199	0.038			0.131	0.279
Interpersonal Relationship	Total effect	0.542	0.071	7.586	0	0.401	0.682
	Direct effect	0.301	0.078	3.86	0	0.148	0.455
	Indirect effect	0.24	0.045			0.16	0.338
Workload	Total effect	0.383	0.068	5.643	0	0.249	0.516
	Direct effect	0.187	0.068	2.747	0.006	0.053	0.321
	Indirect effect	0.196	0.037			0.13	0.274
Job Demands	Total effect	0.434	0.071	6.099	0	0.294	0.574
	Direct effect	0.219	0.073	3.024	0.003	0.077	0.362
	Indirect effect	0.214	0.04			0.141	0.3

Therefore, perceived social support mediate the association between all work stressors and burnout dimensions, effectively reducing the adverse effects of work stress on EE, DP, and PA. Thus, hypothesis 3 was accepted.

5. Discussion

The findings show a strong correlation between work stress factors, including job security, teaching guarantee, and interpersonal relationships, and the burnout dimensions of university lecturers. The study also highlights that perceived social support significantly affects reduced personal accomplishment, while it has no effect on emotional exhaustion or depersonalization. Furthermore, perceived social support was found to mediate the connection between work stress and the dimensions of burnout. This research offers a novel approach to reducing burnout among university lecturers, which holds significant importance in alleviating their burnout and enhancing their mental health.

The research revealed that work stress (job security, teaching guarantee, interpersonal relationships) was significantly and positively associated with the burnout dimensions of university lecturers. This indicates that high levels of job security, teaching guarantee and interpersonal relationship lead to an increased degree of burnout. However, workload had positive impact on emotional exhaustion and depersonalization, while job demands positively influenced reduced personal accomplishment. These findings align with previous studies, which have shown that burnout is positively related to job stress, with work stress exerting a significant influence on emotional exhaustion and cynicism, though not on professional inefficacy (Khan et al., 2018; Wu et al., 2020). However, the results contradict the findings of

Xu and Yang (2021), who demonstrated that job stress significantly affected emotional exhaustion and professional inefficacy, but not cynicism. The arguments of Leiter and Maslach (2004) provide insight into this phenomenon. According to their framework, exhaustion is often a direct outcome of job stress. Cynicism, on the other hand, is a negative, detached, and self-protective reaction to job-related stressors that emerges following the overload of exhaustion. Cynicism is therefore directly influenced by exhaustion, creating a strong correlation between the two. Consequently, work stress can only affect cynicism through exhaustion because it is such a distal antecedent of cynicism in relation to exhaustion.

Researchers also examined the effect of perceived social support on the burnout dimensions. The findings reveal that perceived social support has a significant negative effect on reduced personal accomplishment, but it does not significantly impact emotional exhaustion or depersonalization. This may be because perceived social support can boost self-esteem and self-worth, which are crucial for personal accomplishment. When individuals feel supported, they may perceive themselves as more capable, competent, and valued, which directly counters feelings of reduced personal accomplishment. In contrast, emotional exhaustion and depersonalization are primarily driven by the quantity and quality of the workload, emotional demands, and personal coping resources. Even if a person has perceived social support, it might not be enough to mitigate the chronic stressors associated with high workload or insufficient resources. These results are inconsistent with previous studies, which have suggested that social support is significantly associated with both dimensions of burnout, especially emotional exhaustion and disengagement (Khan et al., 2018). One possible explanation is that while teachers who receive support may feel emotionally less drained or less detached from others, such support might not directly improve their sense of competence or effectiveness at work. Moreover, other research has indicated that perceived social support has a negative direct effect on emotional exhaustion and cynicism, but exerts a positive direct effect on professional inefficacy (Choy & Wong, 2017; Yang et al., 2017; Wu et al., 2021). In the context of higher education, some research showed that social support can reduce the risk of teacher burnout (Marcionetti & Castelli, 2021; Maas et al., 2021). And Babb et al. (2022) found a correlation between depersonalization and increased exhaustion, which could be alleviated by support from friends and family. Overall, existing research consistently emphasizes the significant role of social support in mitigating work stress and reducing burnout dimensions across various professions.

The findings highlight the critical importance of perceived social support in mitigating the adverse impact of work stress on various burnout dimensions among university lecturers. Perceived social support consistently serves as a partial mediator, reducing the impact of work stressors, including job security, teaching guarantee, interpersonal relationships, workload, and job demands, on three dimensions of burnout. For emotional exhaustion, perceived social support partially buffers the negative effects of stressors by alleviating emotional strain. Similarly, it mediates the relationship between work stress and depersonalization, reducing feelings of detachment and cynicism. Additionally, perceived social support plays a significant role in enhancing personal accomplishment by fostering a

sense of competence and self-worth, counteracting the negative effects of job-related stressors. The findings of the current study align with previous research. For instance, Fiorill et al., (2017) explore the relationship among burnout, emotional intelligence as a mediator, and social support among primary school teachers, this finding suggested that teacher burnout acted as a partial mediating factor in the relationship between emotional intensity and contentment with received social support. According to Liu and Aungsuroch (2019), perceived social support played a significant mediating role in the relationship between work stress and burnout among Chinese nurses. Similarly, Zhao and Chen (2021) highlighted the importance of social support, especially from supervisors, in mitigating stress and lowering burnout levels among Chinese secondary school teachers. Additionally, in the context of inclusive education, Xie et al. (2021) showed that occupational stress significantly impacts job burnout, and social support partially mediates this relationship. In the context of higher education, Babb et al. (2022) identified a correlation between depersonalization and increased exhaustion, which could be mitigated through support from friends and family. Moreover, higher levels of achievement were found to be associated with administrative support, peer and parental support, physical health and wellness activities, and parental involvement. Overall, Current studies consistently highlight the importance of perceived social support in alleviating work stress and addressing multiple dimensions of burnout among educators, particularly university lecturers. These findings highlight the significance of fostering a supportive environment to improve well-being and professional outcomes in educational settings.

6. Conclusion

This research revealed that work stress factors, including job security, teaching guarantee, interpersonal relationships, significantly influence various dimensions of burnout. However, workload and job demands did not have a consistent impact across all dimensions of burnout. Perceived social support was found to have no significant effect on EE and DP but demonstrated a significant negative effect on PA. Furthermore, perceived social support partially mediated the association between work stress and burnout aspects among university lecturers, highlighting its significance as a buffer against the harmful impacts of work stress.

This study highlights that certain work stressors and perceived social support significantly impact lecturers' burnout dimensions. Based on these findings, the researchers recommend that university administrators implement policies aimed at improving job stability, providing consistent support and ensuring access to adequate teaching resources, professional development opportunities, and clear feedback mechanisms. Such measures can help cultivate a positive and supportive work environment. The results underscore the critical role of perceived social support in preventing burnout, suggesting that universities should prioritize offering instructors practical, emotional, and educational support. Encouraging lecturers to seek and receive support from family, friends, and colleagues is equally important. Furthermore, creating a peaceful, supportive, and enjoyable work environment is essential to mitigate burnout. Strengthening lecturers' social support systems, therefore, emerges as a promising approach for lowering burnout and fostering long-term well-being in academic settings.

This study makes a significant contribution to understanding the impact of work stress and perceived social support on the dimensions of burnout among university lecturers in several ways. By highlighting the critical role of perceived social support, the research offers a potential strategy for alleviating the effects of work stress and burnout. This approach not only aims to protect the physical and mental health of lecturers but also fosters the sustainable growth and development of higher education in China. Moreover, the study provides valuable insights into lecturer burnout, contributing meaningful data to the global discourse on teacher burnout, particularly in countries with similar educational structures. By investigating the current state of job burnout among university lecturers, this research helps address key gaps in burnout theory on a global scale, making it a significant addition to the field. Although the findings suggest that perceived social support may assist in managing stress and burnout, it is not a highly reliable predictor on its own. This highlights the need for further investigation to identify more effective coping strategies for managing job stress and burnout among university lecturers. While this challenge is considerable, it is both essential and valuable for enhancing educators' well-being and strengthening academic institutions in the long term.

This research has several limitations that need to be acknowledged. First, the small sample size and the reliance on self-reported data introduce potential biases. Selection bias may have occurred, as burnt-out faculty members might have been more likely to participate, despite the random selection process for inviting respondents. Second, the study's quantitative design makes it impossible to offer a comprehensive explanation of how perceived social support impacts work stress and burnout among lecturers. The study relies solely on questionnaire-based measurements of work stress, burnout, perceived social support, limiting the depth of insight into these dynamics. Third, the findings may not be generalizable to lecturers in rural universities or other contexts, as the participants were university lecturers from Shanxi Medical University, aged 28 to 45 located in a major city in China. Furthermore, the sample predominantly consisted of young college instructors, which might not fully represent the broader population of Chinese university lecturers. Therefore, it is uncertain whether similar results would be obtained in studies involving lecturers from other universities, provinces, or countries. Finally, the study's cross-sectional methodology makes it difficult to determine causal correlations. Consequently, caution should be exercised when interpreting the results and drawing conclusions from the data analysis.

Acknowledgments

The authors are grateful to all the authors' contribution during the completion of this study.

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Ethical approval

This study was conducted in accordance with the Declaration of Helsinki, and approval was obtained from the Ethics Committee of the second hospital of Shanxi Medical University (Ethical Review No. 2024-302) prior to the data collection. Written informed consent was obtained from all participants.

Declaration of competing interest

The authors declare that they have no conflicts of interest.

Data statement

Due to the nature of this research, participants of this study did not agree for their data to be shared publicly, so supporting data is not available.

Funding sources

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

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