

The Impact of Primary School Teachers' Work Stress on Job Satisfaction: The Mediating Role of Emotional Labor and Psychological Capital

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Abstract:

This study addresses the prevalent issue of work-related stress among primary school teachers, using a survey method to collect data and conduct statistical analysis. The results indicate that primary school teachers experience moderate levels of work stress, while their job satisfaction is slightly above average. Emotional labor plays a simple mediating role in the relationship between work stress and job satisfaction. Additionally, psychological capital serves as a simple mediator between the two. Furthermore, emotional labor and psychological capital together function as a chain mediator in this relationship.

Keywords:

Primary school teachers; Work stress; Job satisfaction; Emotional labor; Psychological capital; Simple mediation; Chain mediation

1 Introduction

Teaching is a noble profession, encompassing not only the responsibility of imparting knowledge but also the mission of touching lives with life and nurturing hearts with soul. Therefore, teachers' job satisfaction is closely tied to both the quality of education and the emotional growth of students. Job satisfaction among teachers primarily refers to the cognitive satisfaction and emotional experiences derived from their professional activities in teaching and mentoring [1]. It encompasses various aspects of their work, including teaching, student respect and progress, personal growth and maturity, and societal recognition, all of which can serve as sources of fulfillment. According to Martin Seligman's theory of well-being, factors influencing job satisfaction include both subjective and objective elements. Objective factors include economic income, social support, work environment, workload, promotion systems, and school policies, while subjective factors involve teacher ethics, professional identity, self-experience, teacher-student relationships, and professional development [2].

However, as societal expectations for education continue to rise, teachers are facing increasing work-related stress. Faulkner posits that teachers' stress significantly impacts their emotional well-being [3]. Jiang Weiyong suggests that higher work stress correlates with lower job satisfaction among teachers [4]. Research both domestically and internationally indicates that the sources of teacher stress are diverse and complex. Kyri-



acou defines teacher stress as a syndrome of negative emotional reactions, typically triggered by work-related factors and accompanied by potentially pathogenic physiological changes [5]. Li Qiong identifies five primary sources of stress for primary and secondary school teachers: workload, student academic performance, societal and school evaluations, professional development, and student behavioral issues [6].

Emotional labor in teaching refers to the process by which teachers regulate their internal feelings and external emotional expressions to achieve specific educational outcomes, fulfill professional requirements, and maintain positive social relationships within school settings [7]. Gao Jieyan's research reveals that higher occupational stress leads to greater reliance on emotional labor strategies, particularly surface acting and deep acting [8]. Wen Ying's study finds a significant negative correlation between surface acting and job satisfaction among special education teachers [9].

Psychological capital represents a positive psychological state exhibited during an individual's growth and development, characterized by self-efficacy, optimism, hope, and resilience [10]. Zhang Xichao highlights a significant negative correlation between occupational stress and psychological capital among primary school teachers, as well as a positive correlation between psychological capital and subjective well-being. Chen Ludan's research further demonstrates that psychological capital mediates the impact of emotional labor on job satisfaction among high school teachers [11].

This study aims to explore the potential relationships among work stress, job satisfaction, emotional labor, and psychological capital in primary school teachers.

2. Research Methods

2.1 Participants

This study employed a convenience sampling method to recruit 507 in-service primary school teachers as participants.

2.2 Research Instruments

2.2.1 Work Stress Scale

The study utilized the Work Stress Scale for Primary and Secondary School Teachers, developed by Li Qiong in 2011 [6]. The scale adopts a Likert 5-point scoring system (4 = "very high stress," 1 = "no stress"). It comprises five dimensions: workload stress, student academic stress, societal and school evaluation stress, professional development stress, and student behavioral stress, with a total of 23 items. The scale demonstrated good reliability, with a Cronbach's α coefficient of 0.904. Confirmatory factor analysis (CFA) yielded the following results: $\chi^2/df = 2.77$, NFI = 0.855, RFI = 0.833, IFI = 0.902, TLI = 0.886, CFI = 0.901, and RMSEA = 0.059, indicating satisfactory reliability and construct validity.

2.2.2 Job Satisfaction Scale

The study adopted the Job Satisfaction Scale for Primary and Secondary School Teachers, developed by Lan Jing in 2020 [2]. The scale uses a Likert 6-point scoring system (6 = "strongly agree," 1 = "strongly

disagree"). It includes five dimensions: positive emotions, achievement, engagement, meaning, and relationships, with a total of 15 items. The scale showed good reliability, with a Cronbach's α coefficient of 0.832. CFA results were as follows: $\chi^2/df = 2.467$, NFI = 0.89, RFI = 0.855, IFI = 0.931, TLI = 0.909, CFI = 0.93, and RMSEA = 0.054, indicating satisfactory reliability and construct validity.

2.2.3 Emotional Labor Scale

The study employed the Emotional Labor Scale developed by Diefendorff in 2005 [12]. The scale uses a Likert 5-point scoring system (5 = "strongly agree," 1 = "strongly disagree"). It consists of three dimensions: surface acting, deep acting, and natural emotional expression, with a total of 14 items. The scale demonstrated good reliability, with a Cronbach's α coefficient of 0.886. CFA results were as follows: $\chi^2/df = 4.227$, NFI = 0.919, RFI = 0.899, IFI = 0.937, TLI = 0.921, CFI = 0.937, and RMSEA = 0.08, indicating acceptable reliability and construct validity.

2.2.4 Psychological Capital Scale

The study adapted the Psychological Capital Scale for Primary and Secondary School Teachers, developed by Zhang Wen in 2010 [13]. The scale uses a Likert 6-point scoring system (6 = "strongly agree," 1 = "strongly disagree"). The original scale included 19 items, but three items with low quality were removed during the revision process, resulting in a final scale of 16 items across four dimensions: resilience, optimism, hope, and self-efficacy. The scale demonstrated good reliability, with a Cronbach's α coefficient of 0.88. CFA results were as follows: $\chi^2/df = 4.64$, NFI = 0.83, RFI = 0.8, IFI = 0.86, TLI = 0.83, CFI = 0.86, and RMSEA = 0.08, indicating acceptable reliability and construct validity.

2.3 Statistical Methods

Data analysis was conducted using SPSS 25.0 for descriptive and inferential statistics, while AMOS 24.0 was used for confirmatory factor analysis (CFA) and path analysis modeling.

2.4 Common Method Bias Test

Since the questionnaires were completed by the same individuals at the same time, common method bias was a potential concern. A single-factor test revealed 15 factors with eigenvalues greater than 1, with the first factor explaining 19.04% of the variance, below the critical threshold of 40%. This suggests that common method bias was not significant.

3 Research Results

3.1 Current Status of Work Stress and Job Satisfaction Among Primary School Teachers

Descriptive statistics of the questionnaire scores are presented in Table 1. The results indicate that the overall mean score for work stress among primary school teachers was 2.05, reflecting a moderate level of stress. The professional development stress dimension scored relatively lower, indicating a below-average level of stress. Other dimensions scored at moderate levels. Overall job satisfaction and its sub-dimensions were rated above average, indicating a moderately high level of job satisfaction.



Table 1 Descriptive Statistics of Work Stress and Job Satisfaction Among Primary School Teachers

Variable	N	Minimum	Maximum	Mean	Standard Deviation
Work Stress Sources	507	0.39	3.61	2.05	0.615
Workload Stress	507	0.33	3.83	2.04	0.72973
Societal and School Evaluation Stress	507	0.4	4	2.21	0.77188
Student Behavioral Stress	507	0	4	2.22	0.95146
Student Academic Stress	507	0	4	2.2	0.78649
Professional Development Stress	507	0	3.75	1.58	0.78037
Job Satisfaction	507	2.4	6	4.67	0.55278
Achievement	507	1.33	6	4.33	0.83851
Relationships	507	2	6	4.89	0.65453
Positive Emotions	507	2	6	4.61	0.8064
Engagement	507	2	6	4.57	0.78393
Meaning	507	2	6	4.94	0.71781

3.2 Correlations Among Work Stress, Job Satisfaction, Emotional Labor, and Psychological Capital in Primary School Teachers

Pearson correlation analysis was conducted to examine the relationships between work stress (and its dimensions), job satisfaction (and its dimensions), emotional labor, and psychological capital among primary school teachers. The results are presented in Table 2. The findings indicate the following significant correlations: Work stress was significantly negatively correlated with job satisfaction. Work stress was significantly positively correlated with emotional labor. Work stress was significantly negatively correlated with psychological capital. Job satisfaction was significantly negatively correlated with emotional labor. Job satisfaction was significantly positively correlated with psychological capital. Emotional labor was significantly negatively correlated with psychological capital.

Table 2 Correlations Among Work Stress, Job Satisfaction, Psychological Capital, and Emotional Labor in Primary School Teachers

	Work Stress	Job Satisfaction	Psychological Capital	Emotional Labor
Work Stress	1			
Job Satisfaction	-.266**	1		
Psychological Capital	-.255**	.699**	1	
Emotional Labor	.253**	-.287**	-.333**	1

indicates $p < 0.05$, ** indicates $p < 0.01$, and *** indicates $p < 0.001$. The same applies below.

3.3 Relationships Among Work Stress, Job Satisfaction, Emotional Labor, and Psychological Capital

3.3.1 Direct Effect of Work Stress on Job Satisfaction

A hypothesized model was constructed using SPSS AMOS. To account for the influence of demographic variables, those showing significant differences in job satisfaction were included as control variables and treated as dummy variables. Maximum likelihood estimation was employed to fit the data, as shown in Figure 1, Table 3, and Table 4. The results indicate that, after controlling for demographic variables, the model demonstrated good fit indices. Work stress negatively predicted job satisfaction.

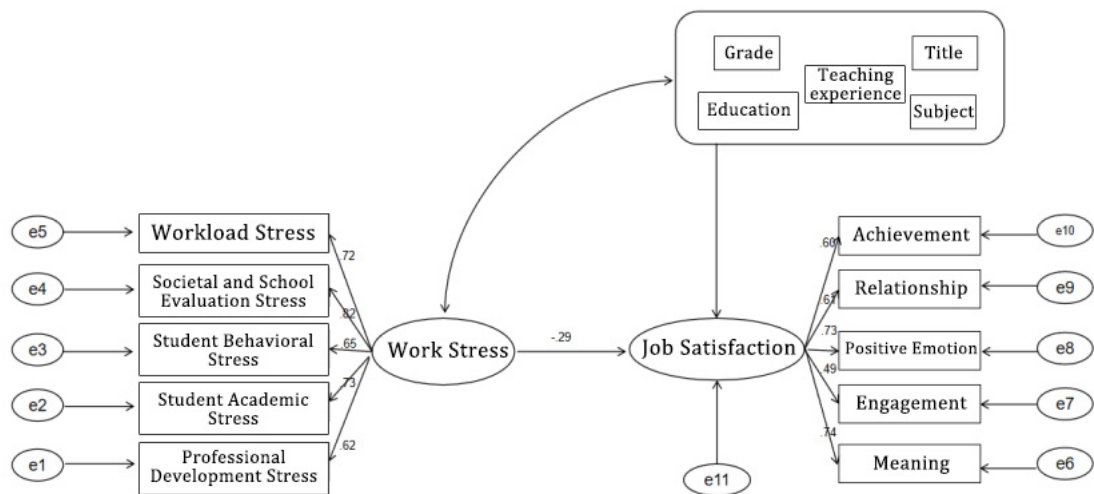


Figure 1 Hypothesized Model of Work Stress Predicting Job Satisfaction

Table 3 Fit Indices for the Model of Work Stress Predicting Job Satisfaction

Index	CMIN	DF	CMIN/DF	NFI	RFI	IFI	TLI	CFI	RMSEA
Value	822.1	283	2.9	0.88	0.85	0.92	0.89	0.91	0.06
Standard			<5	>0.8	>0.8	>0.8	>0.8	>0.8	<0.08

Table 4 Path Coefficients for the Model of Work Stress Predicting Job Satisfaction

			Estimate	S.E.	C.R.	P
Job Satisfaction	<---	Work Stress	-0.29	0.06	-5.06	***

3.3.2 Simple Mediating Effect of Emotional Labor on the Relationship Between Work Stress and Job Satisfaction

Maximum likelihood estimation was used in SPSS AMOS to fit the data. The mediating effect was defined as "ind," the total effect as "total," and the proportion of the mediating effect to the total effect as "r," as illustrated in Figure 2, Table 5, Table 6, Table 7, and Table 8. The results show that, after controlling for demo-

graphic variables, the model exhibited good fit indices. Emotional labor significantly mediated the relationship between work stress and job satisfaction. The direct effect of work stress on job satisfaction decreased from 0.29 to 0.25. Thus, emotional labor played a partial mediating role, accounting for 15% of the total effect.

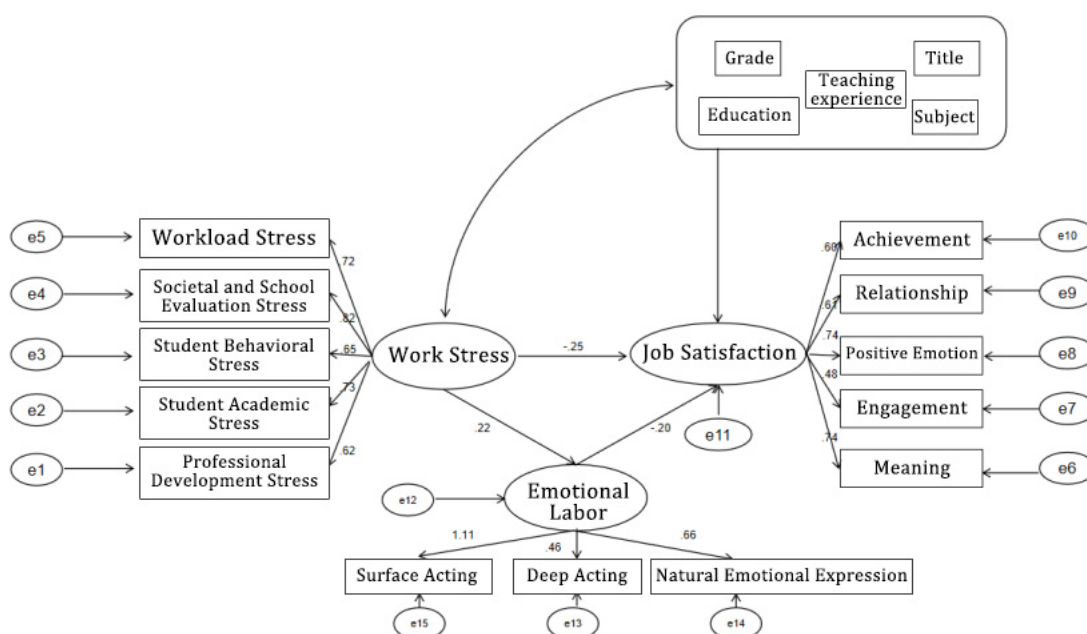


Figure 2 Simple Mediation Model of Emotional Labor on the Relationship Between Work Stress and Job Satisfaction

Table 5 Fit Indices for the Simple Mediating Effect of Emotional Labor on Work Stress and Job Satisfaction

Index	CMIN	DF	CMIN/DF	NFI	RFI	IFI	TLI	CFI	RMSEA
Value	991.94	362	2.74	0.87	0.84	0.91	0.89	0.91	0.06
Standard			<5	>0.8	>0.8	>0.8	>0.8	>0.8	<0.08

Table 6 Standardized Simple Mediating Effect of Emotional Labor on Work Stress and Job Satisfaction(After standardization)

	Work Stress	Emotional Labor	Job Satisfaction
Emotional Labor	0	0	0
Job Satisfaction	-0.04	0	0

Table 7 Direct Effect Path Coefficients in the Simple Mediation Model of Work Stress on Job Satisfaction

		Estimate	S.E.	C.R.	P
Job Satisfaction	Work Stress	-0.25	0.06	-4.47	***

Table8 User-defined estimands

Parameter	Estimate	Lower	Upper	P
ind	-0.05	-0.09	-0.02	0
total	-0.3	-0.45	-0.18	0
r	0.15	0.06	0.32	0

3.3.3 Simple Mediating Effect of Psychological Capital on the Relationship Between Work Stress and Job Satisfaction

Maximum likelihood estimation was used in SPSS AMOS to fit the data. The mediating effect was defined as "ind," the total effect as "total," and the proportion of the mediating effect to the total effect as "r," as illustrated in Figure 3, Table 9, Table 10, Table 11, and Table 12. The results indicate that, after controlling for demographic variables, the model demonstrated good fit indices. Psychological capital significantly mediated the relationship between work stress and job satisfaction. The direct effect of work stress on job satisfaction decreased from 0.29 to 0.08. Thus, psychological capital played a partial mediating role, accounting for 75% of the total effect.

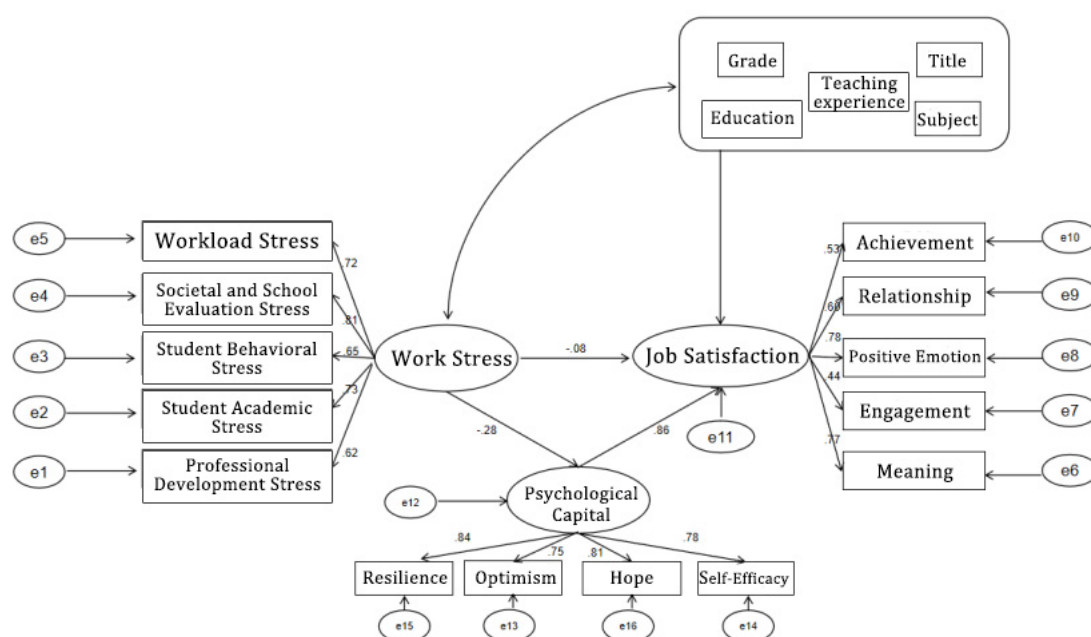


Figure 3 Simple Mediation Model of Psychological Capital on the Relationship Between Work Stress and Job Satisfaction

Table 9 Fit Indices for the Simple Mediating Effect of Psychological Capital on Work Stress and Job Satisfaction

Index	CMIN	DF	CMIN/DF	NFI	RFI	IFI	TLI	CFI	RMSEA
Value	1130.38	391	2.89	0.86	0.84	0.91	0.89	0.91	0.06
Standard			<5	>0.8	>0.8	>0.8	>0.8	>0.8	<0.08



Table 10 Standardized Simple Mediating Effect of Psychological Capital on Work Stress and Job Satisfaction(After standardization)

	Work Stress	Psychological Capital	Job Satisfaction
Psychological Capital	0	0	0
Job Satisfaction	-0.24	0	0

Table 11 Direct Effect Path Coefficients in the Simple Mediation Model of Work Stress on Job Satisfaction

		Estimate	S.E.	C.R.	P
Job Satisfaction	<---- Work Stress	-0.08	0.03	-2.22	0.03

Table12 User-defined estimands

Parameter	Estimate	Lower	Upper	P
ind	-0.22	-0.32	-0.14	0
total	-0.3	-0.43	-0.19	0
r	0.75	0.56	0.97	0

3.3.4 Parallel Mediating Effects of Emotional Labor and Psychological Capital on the Relationship Between Work Stress and Job Satisfaction

Figure 4 Parallel Mediation Model of Emotional Labor and Psychological Capital on the Relationship Between Work Stress and Job Satisfaction

To test the parallel mediating model involving emotional labor and psychological capital, both variables were included as mediators in the structural equation model linking work stress and job satisfaction. Maximum likelihood estimation was used in SPSS AMOS to fit the data. The mediating effect of emotional labor was defined as "ind1," the mediating effect of psychological capital as "ind2," and the total effect as "total," as illustrated in Figure 4, Table 13, Table 14, Table 15, and Table 16. The results show that, after controlling for demographic variables, the model exhibited good fit indices. In this model, the mediating effect of emotional labor (ind1) was no longer significant, while the mediating effect of psychological capital (ind2) remained significant. Therefore, emotional labor and psychological capital did not exhibit parallel mediating effects in the relationship between work stress and job satisfaction.

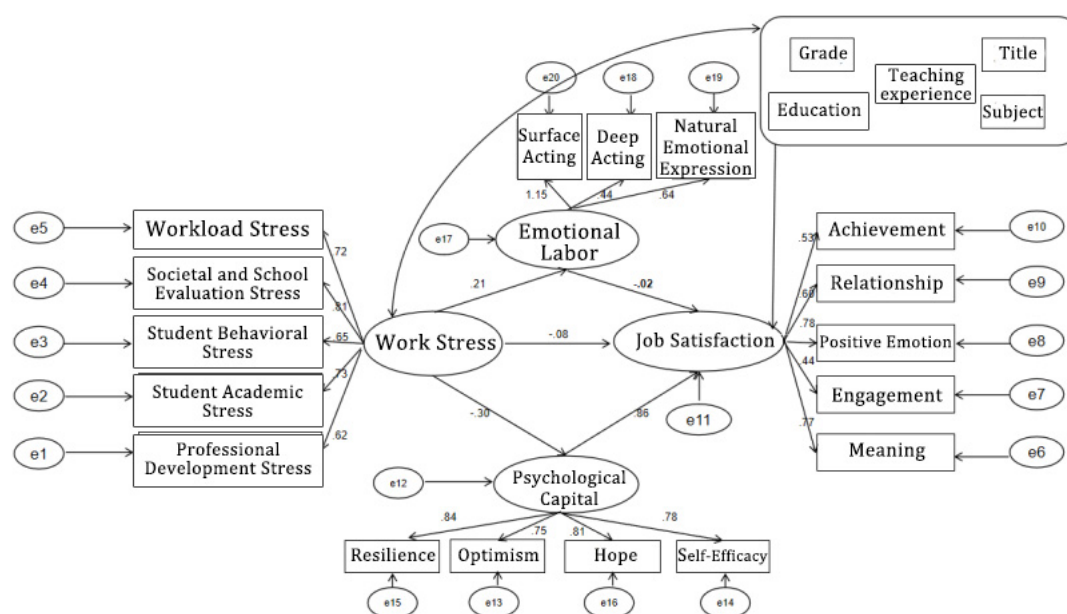


Figure 4 Parallel Mediation Model of Emotional Labor and Psychological Capital on the Relationship Between Work Stress and Job Satisfaction

Table 13 Fit Indices for the Parallel Mediating Effects of Emotional Labor and Psychological Capital on Work Stress and Job Satisfaction

Index	CMIN	DF	CMIN/DF	NFI	RFI	IFI	TLI	CFI	RMSEA
Value	1349.93	482	2.8	0.85	0.83	0.9	0.88	0.9	0.06
Standard			<5	>0.8	>0.8	>0.8	>0.8	>0.8	<0.08

Table 14 Direct Effect Path Coefficients in the Parallel Mediation Model of Work Stress on Job Satisfaction

			Estimate	S.E.	C.R.	P
Job Satisfaction	<---	Work Stress	-0.08	0.04	-2.11	0.03

Table 15 Standardized Parallel Mediating Effects of Emotional Labor and Psychological Capital on Work Stress and Job Satisfaction(After standardization)

	Work Stress	Psychological Capital	Emotional Labor	Job Satisfaction
Psychological Capital	0	0	0	0
Emotional Labor	0	0	0	0
Job Satisfaction	-0.26	0	0	0

Table 16 User-defined estimands

Parameter	Estimate	Lower	Upper	P
ind1	0	-0.02	0.01	0.46
ind2	-0.23	-0.34	-0.15	0
total	-0.31	-0.45	-0.2	0

3.3.5 Chain Mediating Effects of Emotional Labor and Psychological Capital on the Relationship Between Work Stress and Job Satisfaction

To test the chain mediating effects of emotional labor and psychological capital, both variables were included in the structural equation model linking work stress and job satisfaction. Maximum likelihood estimation was used in SPSS AMOS to fit the data. The mediating effect of psychological capital was defined as "M1," the mediating effect of emotional labor as "M2," the chain mediating effect of work stress → emotional labor → psychological capital → job satisfaction as "M4," and the total effect as "M3," as illustrated in Figure 5, Table 17, Table 18, Table 19, and Table 20. The results indicate that, after controlling for demographic variables, the model demonstrated good fit indices. The mediating effect of emotional labor was no longer significant, while the mediating effect of psychological capital remained significant. The chain mediating effect in the path of work stress → emotional labor → psychological capital → job satisfaction was significant.

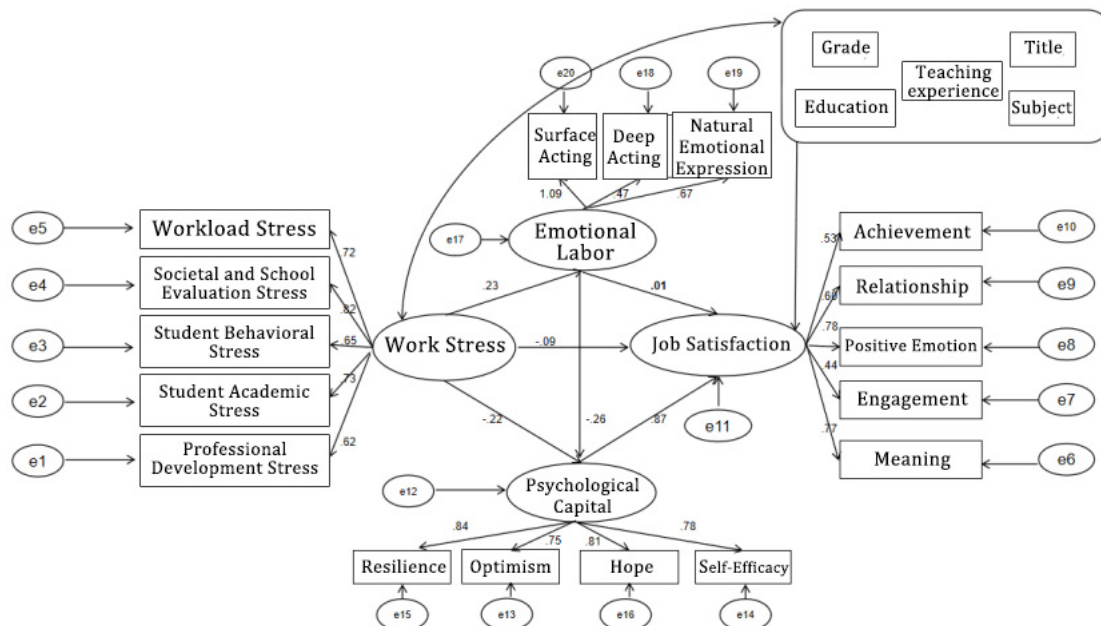


Figure 5 Chain Mediation Model of Emotional Labor and Psychological Capital on the Relationship Between Work Stress and Job Satisfaction

Table 17 Fit Indices for the Chain Mediating Effects of Emotional Labor and Psychological Capital on Work Stress and Job Satisfaction

Index	CMIN	DF	CMIN/DF	NFI	RFI	IFI	TLI	CFI	RMSEA
Value	1312.25	481	2.73	0.86	0.83	0.9	0.89	0.9	0.06
Standard			<5	>0.8	>0.8	>0.8	>0.8	>0.8	<0.08

Table 18 Standardized Chain Mediating Effects of Emotional Labor and Psychological Capital on Work Stress and Job Satisfaction(After standardization)

	Work Stress	Emotional Labor	Psychological Capital	Job Satisfaction
Emotional Labor	0	0	0	0
Psychological Capital	-0.06	0	0	0
Job Satisfaction	-0.24	-0.23	0	0

Table 19 Direct Effect Path Coefficients in the Chain Mediation Model of Work Stress on Job Satisfaction

		Estimate	S.E.	C.R.	P
Job Satisfaction	<--- Work Stress	-0.09	0.04	-2.28	0.02

Table 20 User-defined estimands

Parameter	Estimate	Lower	Upper	P
M1	-0.19	-0.3	-0.1	0
M2	0	-0.01	0.02	0.66
M4	-0.05	-0.09	-0.02	0
M3	-.33	-.47	-.21	.00

4. Discussion and Conclusions

4.1 Current Status of Work Stress and Job Satisfaction Among Primary School Teachers

First, work stress among primary school teachers is prevalent and at a moderate level, consistent with the findings of Yan Fangfang [14] but inconsistent with those of Jia Qianqian [15]. The ranking of work stress sources, from highest to lowest, is as follows: student behavioral stress > societal and school evaluation stress > student academic stress > workload stress > professional development stress. The high level of societal and school evaluation stress may be attributed to the increasing educational attainment of parents, leading to re-

duced reverence for teachers and higher expectations. Unlike university teachers [16], primary school teachers experience lower professional development stress, likely due to fewer academic performance evaluations.

Second, primary school teachers' job satisfaction is above average, aligning with the findings of Quan Lixin [17] and Hu Binfeng [18]. The ranking of job satisfaction dimensions, from highest to lowest, is as follows: meaning > relationships > positive emotions > engagement > achievement. Primary education, as a foundational stage, focuses more on establishing learning habits and moral standards rather than academic performance and advancement to higher education, which are emphasized in secondary education. This focus on foundational values and life skills provides primary school teachers with a greater sense of purpose and fulfillment, contributing to their higher job satisfaction.

4.2 Relationships Among Work Stress, Job Satisfaction, Emotional Labor, and Psychological Capital

First, work stress directly affects job satisfaction among primary school teachers. Higher work stress is associated with lower job satisfaction, consistent with the findings of Yuan Yinhong [19].

Second, both emotional labor and psychological capital exhibit significant simple mediating effects in the relationship between work stress and job satisfaction. Specifically, higher work stress leads to increased emotional labor, which in turn reduces job satisfaction. Similarly, higher work stress diminishes psychological capital, further decreasing job satisfaction. Similar mediating effects have been observed in studies of civil servants [20]. However, emotional labor and psychological capital do not exhibit parallel mediating effects.

Third, a chain mediation pathway exists in the relationship between work stress and job satisfaction among primary school teachers. Specifically, higher work stress increases emotional labor, which subsequently reduces psychological capital, ultimately leading to lower job satisfaction.

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