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Article

Mediating effect of teacher self-efficacy on the impact of hygiene and motivational factors on job satisfaction

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Abstract: In order to explore how hygiene factors and motivational factors indirectly affect job satisfaction through teacher self-efficacy. Based on the two factor theory and Teacher Job Satisfaction Survey (TJS), this study analyzes how hygiene factors and motivational factors indirectly affect job satisfaction through teacher self-efficacy. The study collects valid questionnaires from 120 teachers and conducts mediation analysis using structural equation modeling. From the results, teacher self-efficacy had obvious mediating effects between hygiene factors and job satisfaction ($\beta > 0.6$, $P < 0.001$), as well as between motivational factors and job satisfaction ($\beta > 0.6$, $P < 0.001$). This discovery not only provides new perspectives and strategies for improving teacher job satisfaction, but also emphasizes the importance of enhancing teacher self-efficacy in improving job satisfaction. In addition, the study provides strong empirical evidence for education management departments and school leaders to formulate more effective teacher development policies and management measures, which has positive theoretical and practical significance for improving education quality and promoting education reform.

Keywords: teacher; self-efficacy; job satisfaction; mediating effect; hygiene factors; motivational factors

1. Introduction

With the popularization of education, the public's emphasis on teacher Job Satisfaction (JS) continues to increase (Zang et al., 2022). How to improve teacher self-efficacy and enhance their JS has become a key issue. The challenges, sense of achievement, and promotion opportunities inherent in the job itself, as well as hygiene factors such as interpersonal relationships, salary, and teaching environment, can all have an impact on teacher self-efficacy, indirectly affecting their JS (Anastasiou and Garametsi, 2021). However, the current research on how healthcare and motivational factors directly affect teachers' self-efficacy and indirectly affect their job satisfaction is not deep enough, and the mechanism of how motivational and healthcare factors affect teachers' job satisfaction is not yet complete (Pedersen et al., 2021). Structural Equation Modeling (SEM) is a model for establishing, estimating, and testing causal relationships (Guenther et al., 2023) This model is used to establish a SEM mediation effect model, exploring the impact of hygiene and motivational factors on teacher self-efficacy and JS by constructing multiple different pathways. The innovation of this study lies in constructing an SEM mediation model to verify the impact of hygiene and motivational factors on teacher self-efficacy and JS. The contribution is fact that this model can propose improvement measures to enhance teacher JS, thereby accelerating the development of the education industry.

Related work

With the continuous development of the education industry, teacher JS is increasingly valued by educators (Jentsch et al., 2022). Many scholars have conducted surveys on teacher JS. For instance, Toropova et al. (2020) analyzed the relationship between JS, school working conditions, and teacher characteristics. The research results indicated a significant correlation between school working conditions and teacher JS (Toropova et al., 2020). Moreover, Harrison et al. (2020) also analyzed the relationship between teacher JS and teaching quality. The relationship between the two was discussed using a multi-layer structural equation model. The findings showed that teacher JS was positively correlated with teaching quality (Harrison et al., (2020). Kartiko et al. (2023) carried out the impact of organizational commitment and student behavior on teacher JS. A questionnaire survey was conducted using quantitative analysis and census methods. Organizational commitment and student behavior had an impact on teacher JS (Kartiko et al., 2023). However, the above studies have rarely considered the indirect effects of motivational and hygiene factors on teacher JS. Therefore, building a mathematical model to explore the relationship between the two is an urgent problem that needs to be solved (Ntoumanis et al., 2020).

The SEM mediation model is a powerful statistical tool that applied to analyze relationships between variables, which is widely used in various relationship tests (Hidayat and Patricia, 2022). For example, Rahman (2022) designed a SEM-based model to examine the relationship between the satisfaction of low-income working women with assisted transportation. The results indicated that the model could effectively represent the relationship between the two (Rahman, 2022). Ali et al. (2021) proposed a SEM-based mediation model for Pakistan's satisfaction with the green IT. The model was tested in practical situations. The results showed that the model could accurately represent the relationship between user satisfaction and influencing factors (Ali et al., 2021). Firmansyah and Wahdiniwaty (2023) designed an equation model based on SEM to explorer the impact of digital transformation on competitiveness. The model was tested in practical situations. The results showed that it could accurately describe the impact of digital transformation on competitiveness (Firmansyah and Wahdiniwaty, 2023).

In summary, there is limited analysis in current research on the impact of motivational and hygiene factors on teacher self-efficacy and JS. Therefore, this research utilizes SEM to construct a mediation model to analyze the direct effects of hygiene and motivational factors on self-efficacy, as well as the indirect effects of these two factors on teacher JS.

2. Theoretical basis and research hypotheses

2.1. Definition and influencing factors of teacher self-efficacy

Self efficacy is an individual's speculation and inference about their ability to complete a specified behavior (Boakye et al., 2022; Meredith et al., 2022). Teacher self-efficacy refers to a subjective judgment of a teacher's ability to influence student learning and school education outcomes (Boakye et al., 2022). The structure of teacher self-efficacy is generally divided into three parts: internal factors, environmental

factors, and behavioral factors. The schematic diagram of its structure is shown in **Figure 1**.

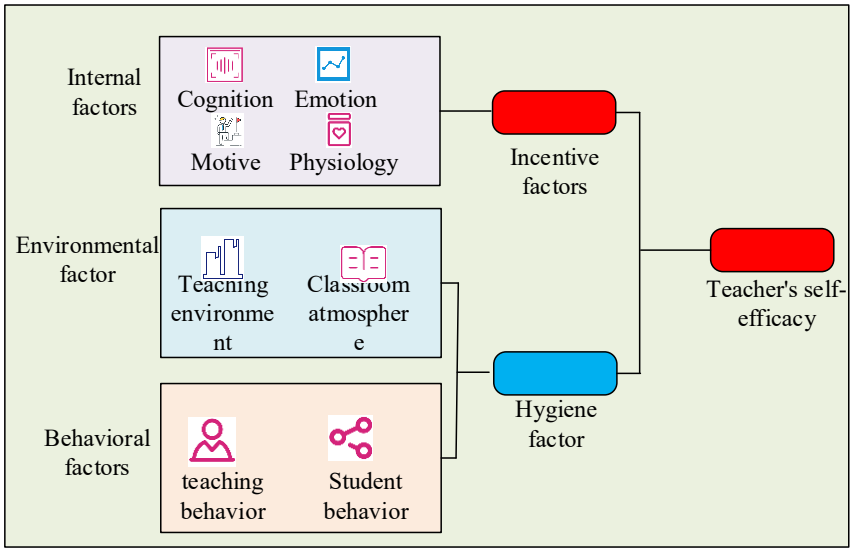

Figure 1. Structure of teacher self-efficacy.

In **Figure 1**, the internal factors of self-efficacy mainly include four aspects: teacher cognition, motivation, emotion, and physiology. Environmental factors mainly refer to the teaching environment and classroom atmosphere of teachers. Behavioral factors refer to the teaching behavior of teachers themselves. Teacher self-efficacy consists of the above three parts, and the influencing factors of self-efficacy are also linked to the above three parts. Motivational factors refer to factors that can satisfy teachers, which originate from the work itself and belong to the internal influencing factors of teacher self-efficacy. Hygiene factors refer to the factors that cause teachers' dissatisfaction and resistance, which belong to the external influencing factors of teacher self-efficacy, namely environmental and behavioral factors. Adjusting for hygiene and motivational factors has obvious impacts on teacher self-efficacy.

2.2. The impact mechanism of hygiene factors and motivational factors on job satisfaction

From the above theory, hygiene factors and motivational factors have obvious impacts on teacher self-efficacy. Teacher self-efficacy can have a significant impact on various aspects of teacher JS (Rahi et al., 2020; Violin, 2022). Based on the constructed theoretical framework, the study aims to explore in depth how hygiene factors and motivational factors affect teacher self-efficacy through different mechanisms, thereby influencing teacher JS. The impact mechanism of hygiene and motivational factors on teacher self-efficacy and JS is shown in **Figure 2**.

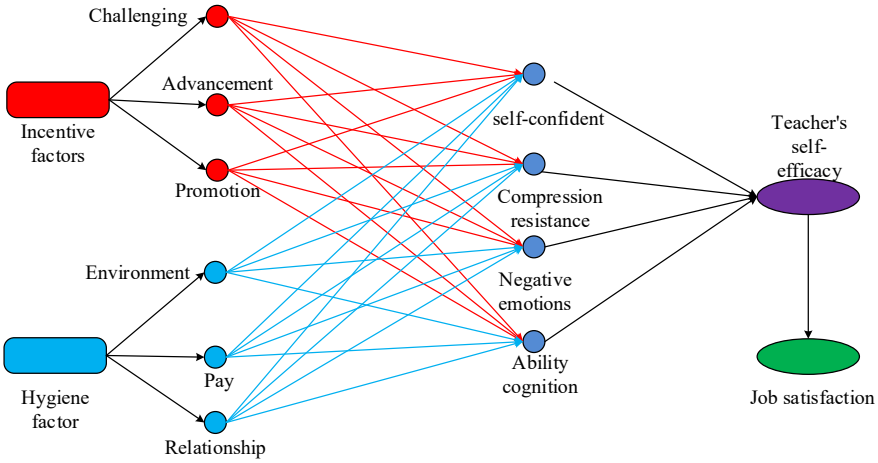

Figure 2. Mechanism of hygiene factors and motivational factors on job satisfaction.

As shown in **Figure 2**, motivational factors mainly include work challenge, a sense of achievement, and promotion opportunities. These factors can stimulate teachers' work enthusiasm, thereby improving their self-efficacy. Hygiene factors include work interpersonal relationships, salary and benefits, and teaching environment. Improving these three factors can enhance the self-efficacy. Self-efficacy can have a significant impact on teacher JS. Firstly, it has active impacts on JS. High self-efficacy has stronger self-confidence and the ability to response difficulties and face challenges. However, teachers with low self-efficacy have insufficient understanding of their own abilities, low self-confidence, and are prone to retreat when faced with difficulties and challenges, resulting in stress and negative emotions, which can have a negative influence on JS. Moreover, teacher self-efficacy and JS can also mutually influence each other. Improving self-efficacy can affect JS, and enhancing JS can also improve teacher self-efficacy.

2.3. Research hypothesis

Relying on the above theoretical framework, the following research hypotheses are designed to empirically verify that hygiene factors and motivational factors can indirectly affect JS by influencing teacher self-efficacy. Hypothesis 1: An increase in teacher self-efficacy will lead to an increase in teacher JS. Hypothesis 2: Motivational and hygiene factors can enhance self-efficacy. Hypothesis 3: Self-efficacy can serve as a mediating effect of motivational and hygiene factors on JS.

3. Research method

3.1. Research object and data source

To comprehensively analyze the impact of hygiene and motivational factors on teacher self-efficacy and JS, this study selects some teachers from a school in Shaanxi Province from 10 May to 20 July 2021 as research subjects. The research subjects cover teachers from different disciplines, which can better reflect the overall teaching JS of different teachers at present. The research subjects are all in-service teachers

who have worked for at least one year, to ensure the result authenticity. **Table 1** displays the basic information.

Table 1. Sample basic information.

Grade	Subject	Male female ratio	Number of people	Percentage
Primary school	Chinese	4:6	6	30%
	Mathematics	7:3	6	
	English	5:5	6	
	Physical	6:4	6	
	Chemistry	5:5	7	
	Physical	6:4	5	
Junior high school	Chinese	4:6	8	40%
	Mathematics	7:3	9	
	English	5:5	8	
	Physical	6:4	7	
	Chemistry	5:5	9	
	Physical	6:4	7	
High center	Chinese	4:6	6	30%
	Mathematics	7:3	6	
	English	5:5	6	
	Physical	6:4	6	
	Chemistry	5:5	7	
	Physical	6:4	5	

According to **Table 1**, the proportion of male and female teachers in the selected research subjects is relatively even, and the proportion of students in different grades is roughly the same. The data for the above-mentioned research subjects mainly comes from the monthly reports of schools. The monthly report of the school includes the evaluation of teachers' work ability, teacher work summary, teacher feedback on work problems, teaching opinions, and teacher self-evaluation. Analyzing this data can deeply explore the direct impact of motivational and hygiene factors on teacher self-efficacy, and further analyze the indirect impact of motivational and hygiene factors on JS.

3.2. Research tool

This study used field interviews and data observation methods to comprehensively analyze the results of the teacher satisfaction survey collected from the TJS questionnaire survey. The study selected multiple variables from multiple satisfaction levels to investigate teacher job satisfaction. The main variables that affect teacher satisfaction are shown in **Table 2**.

Table 2. Main variables affecting teacher satisfaction.

Variable number	Variable type	Variable name	Variable number	Variable type	Variable name
1		Work Itself	6		Working Conditions
2		Advancement	7		Pay
3	Motivational factors	Supervision	8	Hygiene factor	Colleagues
4		Security	9		Recognition
5		Responsibility			

According to **Table 2**, there are many variables that affect teacher JS, among which the job itself and job achievements belong to motivational factors, while the work environment and salary belong to hygiene factors. These satisfaction variables contain 66 different items, with Work Itself containing 9 different items, Advancement containing 5 different items, Security containing 3 different items, and Supervision variable containing up to 14 items. Responsibility contains 8 different items. The Working Conditions variable contains 7 different entries, the Pay variable contains 7 different entries, the Colleague variable contains 10 different entries, and the Recognition variable contains 3 different entries. These items have scores ranging from 1 to 5. Teachers fill out the TJS survey questionnaire based on their actual situation. Finally, the scores obtained from the survey results are used to characterize teacher satisfaction, which are applied to analyze the impact of motivational and hygiene factors on teacher JS. And the study conducted data analysis on the survey questionnaire to explore the direct impact of cultural differences on teacher motivation and health factors, as well as the indirect impact of these factors on teacher job satisfaction.

3.3. Construction of mediation model based on SEM

To further analyze how motivational and hygiene factors directly affect teacher self-efficacy and indirectly impact their JS, a mediation model based on SEM is constructed. Based on the SEM mediation model, the total effect of the independent variables of motivational factors and hygiene factors on the dependent variable of teacher JS is validated, i.e., hypothesis 3 is verified. The independent variables of motivational factors and hygiene factors have an effect on the mediating variable of teacher self-efficacy, i.e., hypothesis 2. The mediating variable of teacher self-efficacy and its effect on the dependent variable of teacher JS. In addition, this model compares the total effect of the independent variable on the dependent variable with the effect of only the mediator variable on the dependent variable to determine whether the mediator effect exists, thus verifying hypothesis 1. The constructed SEM mediation model mainly includes path coefficient estimation equation and fitting index formula. The path coefficient estimation equation is used to calculate the strength of causal relationships between variables (AlHamad et al., 2021). Generally, the maximum likelihood estimation method is used for calculation, as shown in Equation (1).

$$\ln L(\theta) = ln(f(x1;\theta)) + \ln(f(x2;\theta)) \cdots + \ln(f(xn;\theta)) \quad (1)$$

In Equation (1), $L(\theta)$ is the likelihood function. θ represents a given parameter. x represents the path in the mediation model. xn represents the n-th path in the mediation model. The fitting index equation is used to assess the fitting degree to the

observed data, generally represented by the chi square fitting degree index, as displayed in Equation (2) (Zhong et al., 2023).

$$X^2 = \sum \frac{(O - E)^2}{E} \tag{2}$$

In Equation (2), O represents the actual observed frequency of the path. E represents the expected frequency of different paths. And use longitudinal analysis to analyze the data collected from the study and the data obtained from the mediation model again. To explore the changes in teachers' self-efficacy and job satisfaction over time and in different educational systems.

3.4. Data analysis

To scientifically and systematically analyze the impact of motivational and hygiene factors on teacher self-efficacy and JS, various data analysis methods are applied in the study, including descriptive statistical analysis, correlation effect analysis, mediation effect analysis, and the influence analysis of hygiene and motivational factors on teacher self-efficacy, to ensure the accuracy and reliability.

4. Research results

4.1. Descriptive statistics analysis

Descriptive statistical analysis is mainly used to describe and summarize the basic characteristics of research samples, including basic information such as teacher gender, subject, grade level, as well as teachers' scores in self-efficacy and JS. The self-efficacy and JS of the samples are shown in **Table 3**. According to **Table 3**, the trends in self-efficacy and JS of teachers at three different stages are the same. From the standard deviation, the JS and self-efficacy scores of primary school teachers were relatively concentrated and stable. The standard deviation of middle school and high school teachers was relatively large, with relatively scattered distribution.

Table 3. Sample self-efficacy and job satisfaction scores.

Teacher category	Variable	Min	Max	Mean value	Standard deviation
Grade School Teacher	Job satisfaction	1.00	5.00	3.50	0.71
	Efficacy	1.00	5.00	3.49	0.69
Junior high school teachers	Job satisfaction	1.00	5.00	3.00	1.41
	Efficacy	1.00	5.00	2.98	1.34
High school teachers	Job satisfaction	1.00	5.00	4.00	1.41
	Efficacy	1.00	5.00	3.87	1.23

4.2. Dimension analysis of TJS questionnaire survey results

In order to further analyze the impact of motivational and hygiene factors on teacher self-efficacy and JS, a dimensional analysis is conducted on the results of the TJS questionnaire survey. Firstly, the study analyzes the impact of motivational factors on various dimensions of JS, as shown in **Table 4**. According to **Table 4**, factors such as the job itself, sense of achievement, sense of security, and sense of responsibility among motivational factors were significantly actively correlated with overall JS.

Among them, the overall JS had the highest correlation with the job itself, followed by job achievement, indicating that education work itself and achievement had the greatest impact on teacher JS.

Table 4. Effect of motivational factors on all dimensions of job satisfaction.

Motivational factors	Work Itself	Advancement	Supervision	Security	Responsibility	Total satisfaction
Mean value	3.54	3.53	3.47	3.52	3.51	3.50
Standard deviation	0.51	0.46	0.54	0.89	0.92	0.92
Total satisfaction	0.75**	0.74**	0.62**	0.73**	0.71**	-

Note: ** demonstrates significant correlation at the 0.01.

Afterwards, the impact of hygiene factors on various dimensions of JS is analyzed. The specific impact situation is shown in **Table 5**. According to **Table 5**, interpersonal relationships, salary and benefits, teaching environment, and external cognition were all significantly positively correlated with overall JS. Among them, the correlation between satisfaction with the teaching environment and overall JS was the highest, indicating that the teaching environment had a particularly important impact on teacher JS. In summary, motivational factors and hygiene factors have a certain impact on teacher JS in different dimensions, which provides strong data support for subsequent mediation effect analysis.

Table 5. Influence of hygiene factors on all dimensions of job satisfaction.

Hygiene factor	Working Conditions	Pay	Colleagues	Recognition	Total satisfaction
Mean value	3.56	3.51	3.47	3.46	3.49
Standard deviation	0.54	0.52	0.64	0.57	0.85
Total satisfaction	0.75**	0.70**	0.67**	0.64**	-

Note: ** demonstrates significant correlation at the 0.01 (bilateral).

4.3. Correlation analysis

To further explore the relationship between hygiene and motivational factors and teacher self-efficacy and JS, a correlation analysis is conducted on the variables. The correlation coefficient matrix between hygiene factors, motivational factors, teacher self-efficacy, and JS is displayed in **Table 6**. The total scores of motivational factors and hygiene factors were significantly correlated with teacher self-efficacy and JS. The correlation between hygiene factors and motivational factors was relatively low.

Table 6. The correlation coefficient matrix among variables.

Variable	Total hygiene factor score	Total points of motivational factors	Efficacy	Job satisfaction
Total hygiene factor score	1.00	0.012	0.578**	0.763**
Total points of motivational factors	0.021	1.00	0.622**	0.731**
Efficacy	0.578**	0.642**	1.00	0.763**
Job satisfaction	0.621**	0.612**	0.675**	1.00

Note: ** demonstrates significant correlation at the 0.01 l.

In addition, the study further analyzes the correlation among various sub factors. The correlation heatmap among various factors is shown in **Figure 3**. From **Figure 3**,

motivational factors such as job itself, job achievement, job security, and job responsibility, as well as hygiene factors such as work environment, interpersonal relationships, and salary, had a significant correlation with teacher self-efficacy and JS, and the coefficients were all above 0.6 ($\beta > 0.6$). From the above analysis results, both hygiene factors and motivational factors are positively correlated with self-efficacy and JS. Teachers with high self-efficacy are more likely to benefit from hygiene and motivational factors, thereby improving their JS.

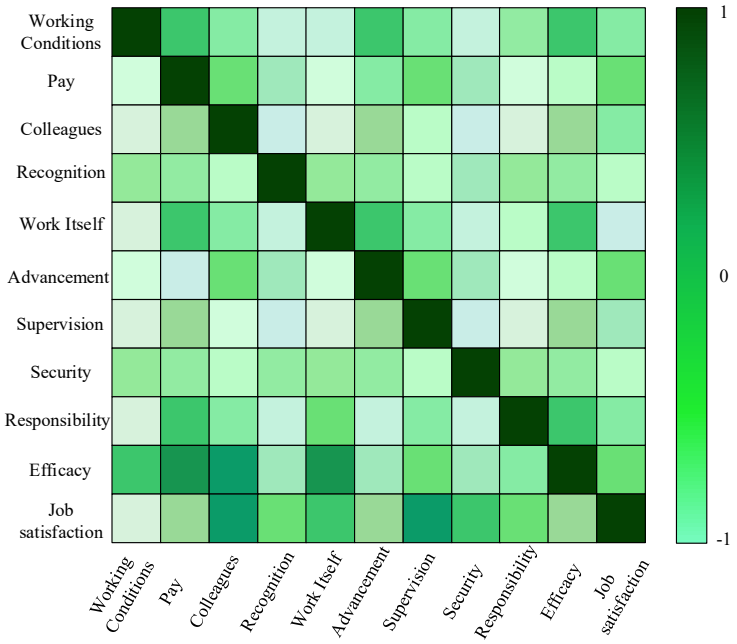

Figure 3. Heat maps of correlation between individual factors.

4.4. Analysis of mediating effect

In order to verify the mediating function of teacher self-efficacy in the impact of hygiene and motivational factors on JS, a SEM is used to analyze the mediating effect. Through the SEM, the direct impact of independent variables on mediator variables (path *a*), the impact of mediator variables on dependent variables (path *b*), as well as the direct impact of independent variables on dependent variables (path *c*) and total impact (path *d*) can be analyzed. The coefficients and statistical significance results of each path are displayed in **Table 7**. Under various paths, hygiene factors and motivational factors had an obvious impact on self-efficacy and JS. The motivational and hygiene factors were strongly correlated with self-efficacy and JS, with a *P*-value below 0.001.

Table 7. Results of the mediation effect analysis.

Path	**Ratio**	**Standard error**	***t***	***P***
Path *a* (Teacher self-efficacy for hygiene factors)	0.45	0.06	7.58	< 0.001
Path *b* (Teacher self-efficacy job satisfaction)	0.60	0.05	12.16	< 0.001
Path *c* (Hygiene factor job satisfaction, indirect effect through self-efficacy)	0.35	/	/	< 0.001
Path *d* (Hygiene factor job satisfaction, direct effect)	0.20	0.08	2.53	< 0.001

Table 7. (*Continued*).

Path	Ratio	Standard error	*t*	*P*
Path *e* (Invationator teacher self-efficacy)	0.50	0.07	7.14	< 0.001
Path *f* (Teacher self-efficacy job satisfaction)	0.60	0.05	12.17	< 0.001
Path *g* (Incentive job satisfaction, direct effect)	0.30	0.09	3.38	< 0.01
Path *g*' (Motivator job satisfaction, indirect effect through self-efficacy)	0.40	/	/	< 0.001

In order to demonstrate the mediating effect more intuitively, the study summarizes the impact paths and effect sizes of hygiene factors and motivational factors on teacher self-efficacy and JS. **Table 8** shows the mediating effect analysis of hygiene factors and motivational factors. From **Table 8**, the path effect coefficient of the indirect impact of hygiene factors and motivational factors on JS through teacher self-efficacy was lower than the direct path effect coefficient of both factors.

Table 8. Summary of the mediating effects of hygiene factors and motivating factors.

Path	Ratio	Effect type
Hygiene factors of teacher self-efficacy	0.45	Direct effect
Teacher self-efficacy and job satisfaction	0.60	Direct effect
Hygiene factors: Job Satisfaction (Indirect)	0.35	Indirect effect (through self-efficacy)
Motivational factors of teacher self-efficacy	0.50	Direct effect
Teacher self-efficacy and job satisfaction	0.60	Direct effect
Motivator job satisfaction (Indirect)	0.40	Indirect effect (through self-efficacy)

To evaluate the fitting degree of the SEM, various fitting index indicators are obtained, as displayed in **Table 9**. The various fitting indicators of the mediation effect model met the expected requirements. Therefore, the accuracy and reliability of the mediation model were high, which could provide strong support for the research. In summary, SEM analysis verified the obvious mediating role of teacher self-efficacy in the impact of hygiene and motivational factors on teacher JS. This discovery confirms hypothesis 3.

Table 9. Model fitting index.

Index type	Exponent	Criteria for evaluation	Fitting results
Absolute fit index	X2/df	< 3	2.13
	GFI	> 0.9	1.32
	SRMR	< 0.08	0.02
	RMSEA	< 0.08	0.03
Value-added fit index	NFI	> 0.9	0.987
	IFI	> 0.9	0.954
	CFI	> 0.9	0.974
The parsimony fitting index	PGFI	> 0.9	0.954
	PNFI	> 0.5	0.964

4.5. The influence of hygiene factors on teacher self-efficacy

Hygiene factors are an important external influencing factor on teacher JS, and their improvement directly affects teachers' psychological feelings and work experience. Therefore, analyzing the specific impact of hygiene factors on teacher self-efficacy is significant for understanding the formation mechanism of JS. In order to more intuitively demonstrate the specific impact of hygiene factors on teacher self-efficacy, multiple hygiene factors and their impact data on teacher self-efficacy are compiled into **Table 10**.

Table 10. Analysis of the influence of hygiene factors on teacher self-efficacy.

Hygiene factor	Influence path	Coefficient	Standard error	*t*	*P*
Working Conditions	Working Conditions → Efficacy	0.54	0.02	3.00	<0.001
Pay	Pay → Efficacy	0.51	0.03	2.67	<0.001
Colleagues	Colleagues → Efficacy	0.43	0.03	1.43	<0.01
Recognition	Recognition → Efficacy	0.32	0.04	1.12	<0.05

According to **Table 10**, work environment and salary were the main influencing factors of teacher self-efficacy, and their impact coefficients on teacher self-efficacy were high and statistically significant ($P < 0.001$). This result indicates that improving hygiene factors in these areas can effectively enhance teacher self-efficacy. Although work colleague relationships and external job recognition have a certain impact on self-efficacy, the influence is relatively small. Therefore, in education management and policy-making, priority should be given to improving the working environment, increasing salary and benefits, and other key hygiene factors to enhance teacher self-efficacy and indirectly improve their JS. The impact of other hygiene factors is considered, creating a more harmonious, just, and supportive working environment for teachers through comprehensive and multiple measures.

4.6. The influence of motivational factors on teacher self-efficacy

Motivational factors stimulate teachers' work motivation and potential by meeting their intrinsic needs and expectations. Therefore, analyzing the specific impact of motivational factors on teacher self-efficacy can help to comprehensively understand the formation mechanism of teacher JS. In order to more intuitively demonstrate the specific impact of motivational factors on teacher self-efficacy, data on multiple motivational factors and their effects on teacher self-efficacy are compiled into **Table 11**.

Table 11. The influence of motivating factors on teacher self-efficacy.

Motivational factors	Influence path	Coefficient	Standard error	*t*	*P*
Work Itself	Work Itself→ Efficacy	0.62	0.01	3.00	<0.001
Advancement	Advancement→ Efficacy	0.61	0.02	2.98	<0.001
Supervision	Supervision→ Efficacy	0.57	0.04	2.31	<0.01
Security	Security→ Efficacy	0.43	0.03	2.11	<0.01
Responsibility	Responsibility→ Efficacy	0.41	0.04	1.02	<0.05

According to **Table 11**, the impact of the job itself and the sense of achievement in the job on teacher self-efficacy was most significant ($P < 0.001$). This result indicates that increasing teacher sense of achievement is an important way to effectively enhance their self-efficacy. In addition, the impact of job security and job supervision on teachers' self-efficacy cannot be ignored. Therefore, in education management and policy formulation, the role of motivational factors should be emphasized. By designing challenging work tasks, establishing a comprehensive achievement recognition mechanism, and providing clear career advancement paths, teachers can stimulate their work enthusiasm and potential, thereby enhancing their self-efficacy and JS. Career development support and reward mechanisms should be optimized continuously to meet the personalized needs and development expectations of teachers.

4.7. The impact of cultural differences on teachers' self-efficacy and job satisfaction

Cultural differences include teachers' own values and attitudes, educational background, religion and ethics, material culture, and corporate environment. These cultural differences can lead to different opinions and perspectives among teachers on job content, thereby affecting their motivational and health factors. The study organized data on the impact of multiple cultural differences on teacher motivation and health factors, and obtained a heat map of the correlation between each cultural difference factor, as shown in **Figure 4**. From **Figure 4**, it can be seen that teacher values and educational background have a significant correlation with teacher motivation factors and health factors, with coefficients above 0.6. Although the coefficients of other cultural differences factors are less than 0.6, they also have a certain impact on teacher health factors and motivation factors. From the above analysis results, it can be seen that teachers with correct values and excellent educational backgrounds are more likely to influence their motivational factors, thereby improving their self-efficacy and job satisfaction.

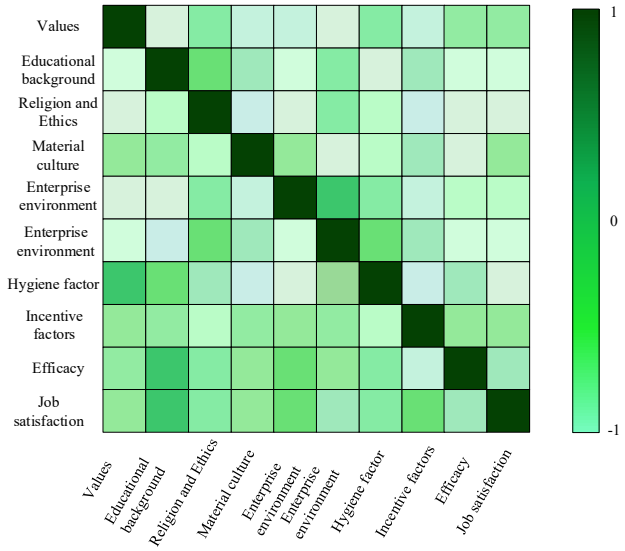

Figure 4. Effect of cultural differences on incentives and health care factors.

5. Conclusion

The study delved into the relationship between motivational factors, hygiene factors, teacher self-efficacy, and JS by constructing a mediation effect model based on SEM. Hygiene factors such as work environment, salary, and interpersonal relationships significantly affected teacher self-efficacy. Motivating factors such as work challenge, sense of achievement, and promotion opportunities could directly stimulate teachers' work enthusiasm and initiative, and enhance their self-efficacy. Teacher self-efficacy played a meaningful mediating role in the impact of hygiene and motivational factors on JS. Based on the above conclusions, the following suggestions were proposed. Education management departments and school leaders should attach importance to improving the working environment of teachers and enhancing teaching quality. Establishing a comprehensive salary system can ensure that teachers' efforts are rewarded appropriately. Establishing a comprehensive achievement recognition mechanism can enhance teachers' professional identity and satisfaction, improve their JS and self-efficacy. Designing challenging work tasks can enhance teachers' teaching abilities and self-efficacy, strengthen their sense of achievement and professional identity. Based on the above measures, teacher self-efficacy can be improved, thereby enhancing their JS and overall teaching quality. However, the sample size of this study is relatively small and the results are somewhat limited. Future research can increase the sample size and study teachers from different regions and education levels to improve the accuracy of the results.

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