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Servant leadership and satisfaction with life among Chinese K-12 schoolteachers: A moderated mediation model

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Abstract: The present study examined the role of general self-efficacy (GSE) and interpersonal justice (IJ) in the relationship between servant leadership (SL) and teachers' satisfaction with life (SWL). Participants were 332 K-12 teachers (98 males, 234 females, mean years of experience = 16.26) in Liaoning Province, China. They completed the Servant Leadership Scale (SLS), the General Self-Efficacy Scale (GSES), the Interpersonal Justice Scale (IJS), and the Satisfaction with Life Scale (SWLS). Results of testing a moderated mediation model showed that SL was associated with higher levels of teachers' SWL. GSE partially mediated the relationship between SL and teachers' SWL. In addition, IJ moderated the relationship between SL and GSE, such that this association, and consequently the indirect effect of SL on SWL through GSE, was stronger when IJ was higher. These findings extend social cognitive theory (SCT) by identifying GSE as a psychological mechanism linking SL to teachers' SWL and advance fairness heuristic theory (FHT) by showing that interpersonal justice shapes the strength of the association between SL and GSE. By implication, fostering SL practices and cultivating an IJ climate may support teachers' GSE and SWL.

Keywords: servant leadership; interpersonal justice; satisfaction with life; general self-efficacy

Introduction

Teachers' experiences of leadership at work are relevant to their quality of work life. For instance, servant leadership (SL) prioritizes employees' interests and needs as valuable ends in themselves rather than merely as means of enhancing organizational performance or profitability (Greenleaf, 1970). In school settings, SL emphasizes responsiveness to teachers' needs and supports their growth by providing resources, developmental coaching, and opportunities for professional growth (He & Guo, 2025). Yet the roles of general self-efficacy (GSE) and interpersonal justice (IJ) in the relationship between SL and teachers' satisfaction with life (SWL) remain under-studied despite the fact that SL is associated with higher levels of SWL (Quinteros-Durand et al., 2023; Chughtai, 2018).

To address these gaps, this study incorporates IJ into the research model as a contextual boundary condition and identifies GSE as a mediating mechanism, thereby constructing a moderated mediation framework that clarifies both how and when SL is associated with teachers' SWL in the Chinese K-12 educational context. Specifically, this study has three purposes: (1) to examine the relationship between SL and SWL among Chinese K-12 schoolteachers, (2) to investigate whether GSE mediates the association between SL and teachers' SWL, and (3) to examine whether IJ moderates both the association between SL and GSE and the indirect association between SL and teachers' SWL through GSE.

Servant leadership and satisfaction with life

As a core component of subjective well-being, SWL refers to a relatively stable cognitive evaluation of one's life, including the perceived congruence among personal circumstances, needs, and aspirations (Pavot & Diener, 2008). Higher levels of SWL among teachers have been associated with better job performance (Marcionetti & Castelli, 2023). Therefore, identifying leadership factors associated with teachers' SWL may be important for maintaining a high-quality teaching workforce.

SL is conceptualized as an other-oriented leadership approach characterized by individualized consideration of followers' interests and needs, whereby leaders shift their focus from self-interest toward caring for others within and beyond the organization (Eva et al., 2019, p. 114). In school settings, SL is reflected in leaders' empathetic responses to teachers' developmental needs, provision of constructive feedback, and granting of appropriate autonomy, all of which are associated with more positive work experiences (Rabiul et al., 2022). Given that work constitutes a substantial domain of teachers' lives, favorable workplace experiences may inform their broader evaluations of life rather than remaining confined to the work domain (Luque-Reca et al., 2022; Qin et al., 2024). In particular, positive affect associated with SL may be reflected in more favorable evaluations of teachers' overall life circumstances and, consequently, higher levels of SWL (Chughtai, 2018; Li et al., 2018). Prior empirical studies have also documented a significant positive association between SL and teachers' SWL (Latif et al., 2021; Quinteros-Durand et al., 2023).

General self-efficacy as a mediator

GSE refers to individuals' beliefs in their ability to achieve desired outcomes (Zimmerman, 2000). Social Cognitive Theory (SCT) posits that contextual influences may shape individuals' behavior and psychological functioning, partly through their GSE beliefs (Bandura, 1999). From

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this theoretical perspective, GSE may constitute a psychological mechanism underlying the association between SL and teachers' SWL.

Teachers with stronger GSE are more likely to approach their work confidently, sustain effort in their teaching practices, and pursue challenging professional goals (Skaalvik & Skaalvik, 2007). SCT identifies vicarious experience and social persuasion as important sources of GSE beliefs (Bandura, 1997). In school settings, SL may strengthen these beliefs by modeling constructive approaches to work-related challenges and providing teachers with encouragement, feedback, and support (Ouyang et al., 2026). These leadership behaviors may help teachers view work demands as manageable and develop greater confidence in their ability to address them (Burić & Kim, 2021). Prior studies have reported a positive association between SL and GSE (Zada et al., 2023; Qiu et al., 2020).

Stronger GSE may also be associated with higher SWL among teachers. Teachers who feel capable of managing instructional demands are more likely to view difficulties as manageable challenges rather than overwhelming threats (Marcionetti & Castelli, 2023), which may help them maintain positive affect and a stronger sense of control (Meng, 2020). These favorable psychological experiences may extend beyond the immediate work context and inform teachers' broader evaluations of life, thereby contributing to higher SWL (Azizli et al., 2015). Accordingly, GSE may mediate the association between SL and teachers' SWL.

The moderating role of interpersonal justice

The association between SL and teachers' GSE may depend on the interactional context in which leadership behaviors are enacted. IJ refers to individuals' perceptions of whether they are treated with respect, dignity, and propriety in interpersonal exchanges (Cropanzano et al., 2002).

In schools characterized by high levels of IJ, courteous, respectful, and dignified treatment may provide an important relational cue that school leaders' behaviors are sincere and trustworthy (Singh et al., 2024). Under such conditions, teachers may be more receptive to the support, encouragement, and developmental resources provided through SL (Dahleez & Aboramadan, 2025). These resources may therefore be more strongly associated with teachers' confidence in their ability to address challenges and solve problems, thereby strengthening their GSE (Rabiul et al., 2022).

By contrast, when IJ is low, disrespectful treatment, inappropriate remarks, or disregard for teachers' dignity may lead teachers to question the sincerity and credibility of leaders' supportive behaviors, potentially weakening the positive association between SL and GSE (Qiu et al., 2022). Therefore, IJ is expected to moderate the association between SL and teachers' GSE. Consequently, the indirect association between SL and teachers' SWL through GSE may also vary across different levels of IJ.

Theoretical foundations

This study is grounded in SCT (Bandura, 1999) and fairness heuristic theory (FHT; Lind, 2001), which jointly provide the foundation for the proposed moderated mediation framework.

SCT posits that individuals' psychological and behavioral outcomes are jointly shaped by the reciprocal interplay among environmental conditions, personal factors, and behavioral responses. Within this framework, GSE serves as an important cognitive mechanism through which environmental influences are translated into psychological and behavioral outcomes (Bandura, 1997, 1999). In school settings, SL constitutes a salient environmental influence by providing teachers with support, guidance, encouragement, and developmental resources (Hartnell et al., 2023). GSE may enable teachers to translate these contextual resources into positive beliefs about their capabilities, leading them to perceive instructional difficulties as manageable challenges and respond to work-related demands with greater confidence and more positive psychological experiences (Çelik & Kahraman, 2018). These adaptive appraisals and experiences may, in turn, contribute to higher levels of teachers' SWL (Quinteros-Durand et al., 2023).

FHT proposes that when individuals are uncertain about authorities' underlying intentions, they rely on fairness-related information as a heuristic for judging whether those authorities are trustworthy and whether their actions are sincere and legitimate (Lind, 2001). These fairness judgments subsequently shape how individuals interpret and respond to authority behavior. IJ may function as such a contextual cue, helping teachers evaluate the trustworthiness of school leaders and the credibility of their actions (Zhang et al., 2024). Consequently, IJ may shape how teachers interpret the support, guidance, and developmental resources provided through SL, as well as their willingness to accept and utilize these resources.

Together, SCT and FHT provide a theoretical account of the proposed moderated mediation model. SCT explains how SL, as a salient environmental influence, may be associated with teachers' SWL through GSE as a cognitive mechanism, whereas FHT explains why IJ may condition the strength of the association between SL and GSE.

The work life context of Chinese K-12 teachers

K-12 teachers in China undertake diverse professional responsibilities. Beyond classroom instruction, teachers are expected to manage student behavior, address diverse student needs, communicate with parents, and participate in school-based research activities (He & Guo, 2025). These responsibilities may contribute to occupational stress and increase teachers' vulnerability to burnout and emotional exhaustion (Meng, 2020). Moreover, the implications of these work demands may extend beyond the workplace to teachers' family life and social relationships, making teacher well-being a particularly important concern in the Chinese K-12 context.

Chinese K-12 schools are also commonly characterized by relatively hierarchical organizational structures, in which management decisions and information tend to flow from the top down (Zhang et al., 2024). Within this

organizational context, teachers' opportunities to express their views and participate in school affairs, together with their day-to-day interactions with school leaders, are important aspects of the work environment that warrant attention. Taken together, these contextual characteristics underscore the importance of examining the proposed relationships among SL, GSE, IJ, and teachers' SWL in Chinese K-12 schools.

Goals of the study

Despite growing evidence of a positive association between SL and teachers' SWL (Chughtai, 2018; Latif et al., 2021; Li et al., 2018; Quinteros-Durand et al., 2023), the psychological processes underlying this association remain insufficiently understood, particularly the potential mediating role of GSE. Moreover, although IJ has been examined as a moderator of SL outcomes (Qiu et al., 2022), whether it moderates the association between SL and teachers' GSE remains unclear. Finally, research on the association between SL and teachers' SWL has been conducted primarily in Western educational settings (Latif et al., 2021; Quinteros-Durand et al., 2023), with comparatively limited attention to Chinese K-12 schools.

Based on the theoretical framework outlined above, the present study proposes the following hypotheses:

H1: Servant leadership is associated with higher levels of teachers' satisfaction with life.

H2: General self-efficacy mediates the association between servant leadership and teachers' satisfaction with life.

H3: Interpersonal justice moderates the association between servant leadership and teachers' general self-efficacy, with a stronger association at higher than at lower levels of interpersonal justice.

H4: The indirect association between servant leadership and teachers' satisfaction with life through general self-efficacy is stronger at higher than at lower levels of interpersonal justice.

Method

Participants and setting

A total of 332 teachers participated in the study. Participants varied in gender, age, teaching experience, school type, and school location, as detailed in Table 1.

Measures

All instruments used a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), with higher scores indicating higher levels of the measured constructs. All scales demonstrated acceptable to high internal consistency, as indicated by the Cronbach's α values reported below.

Servant Leadership Scale: This study used the 7-item Servant Leadership Scale (SLS) developed by Liden et al. (2015). A sample item is "My leader prioritizes my career development." Cronbach's α for SLS scores was 0.88.

Interpersonal Justice Scale: This study used the Interpersonal Justice Subscale (IJS) of the Organizational Justice Scale by Colquitt (2001). The scale included 4 items (e.g., "My supervisor treats me with respect"). The Cronbach's α for IJS scores was 0.86 in the present study.

Satisfaction With Life Scale: This study utilized the 5-item Satisfaction with Life Scale (SWLS) by Diener et al. (1985). A sample item is "I am satisfied with my life." The Cronbach's α for SWL scores was 0.81 for this study.

General Self-Efficacy Scale: This study employed the General Self-Efficacy Scale (GSES) by Schwarzer and Jerusalem (1995), with 10 items (e.g., "I am confident that I could deal efficiently with unexpected events"). The Cronbach's α for GSES scores was 0.91 in the present study.

Procedure

This study was conducted in accordance with the principles of the Declaration of Helsinki and was approved by the Ethics Review Committee of Shenyang Institute of Engineering (Approval No. SIE20260312). All participants provided informed consent prior to participation. Data were collected through Wenjuanxing, a widely used Chinese online survey platform. Participation was entirely voluntary, and all responses were collected anonymously. After duplicate, incomplete, and anomalous responses were excluded, 332 valid questionnaires were retained for the final analysis.

Data analyses

The present study used SPSS 27.0 and Mplus 8.0 to analyze the data. First, before the main analyses, the data were screened and cleaned using SPSS 27.0 to detect outliers, missing values, and duplicate responses. Normality was assessed using skewness and kurtosis values and multicollinearity was assessed using variance inflation factors (VIFs). In addition, potential common method variance (CMV) was examined using the unmeasured latent method factor (ULMF) approach (Podsakoff et al., 2003).

Second, confirmatory factor analysis (CFA) was conducted using Mplus 8.0 to assess the reliability and validity of the measurement model. Composite reliability (CR) was used to evaluate internal consistency, and average variance extracted (AVE) was used to assess convergent validity. Discriminant validity was examined by comparing the square roots of the AVE values with the inter-construct correlations. The fit of the measurement model was evaluated using conventional fit indices, including chi-square (χ^2), degrees of freedom (df), root mean square error of approximation (RMSEA), comparative fit index (CFI), Tucker-Lewis index (TLI), and standardized root mean square residual (SRMR). Bivariate relationships among the study variables were then examined using correlation coefficients.

Third, structural equation modeling (SEM) was conducted using Mplus 8.0 to test the proposed moderated mediation model. The mediating effect of GSE between SL and SWL was assessed using 5000 bootstrap resamples, while the moderating effect of IJ on the relationship between SL and GSE was tested using a latent interaction term. Conditional indirect effects were estimated for IJ at one standard deviation (SD) below the mean (−1 SD), at the mean, and one SD above the mean (+1 SD), and the index of moderated mediation (IMM) was calculated to determine whether the indirect effect varied significantly across levels of IJ.

Table 1. Demographic characteristics of the sample

Variable	Category	Frequency	Percentage (%)
Gender	Male	98	29.5
	Female	234	70.5
Age	20–29 years	88	26.5
	30–39 years	81	24.4
	40–49 years	94	28.3
	50+ years	69	20.8
Teaching experience	0–9 years	128	38.6
	10–19 years	68	20.5
	20–29 years	72	21.7
	30+ years	64	19.3
School type	Public School	270	81.3
	Private School	62	18.7
School location	City/Town	225	67.8
	Rural	107	32.2

Table 2. Reliability, validity, and correlations

Variable	Standardized estimate	CR	AVE	1	2	3	4
SL (1)	0.72–0.84	0.90	0.57	0.75			
IJ (2)	0.73–0.84	0.86	0.62	0.16**	0.79		
GSE (3)	0.70–0.83	0.93	0.57	0.50**	0.30**	0.75	
SWL (4)	0.72–0.78	0.86	0.54	0.43**	0.22**	0.52**	0.73

Note. SL = servant leadership, IJ = interpersonal justice, GSE = general self-efficacy, SWL = satisfaction with life, CR = Composite reliability, AVE = average variance extracted, diagonal entries show the square root of each construct's AVE; values below the diagonal are the correlation coefficients, $^{**}p < 0.01$ (two-tailed).

Reliability and validity analysis

Table 2 presents the reliability, validity, and correlations of the latent variables. The CR values (ranging from 0.86 to 0.93) exceeded the recommended threshold of 0.70, and all standardized loadings were above 0.60. The AVE surpassed 0.50 for each construct, confirming convergent validity. Furthermore, the square roots of each construct's AVE exceeded its correlations with all other constructs, indicating adequate discriminant validity. In addition, the hypothesized four-factor model demonstrated an acceptable level of model fit and outperformed all alternative models evaluated (see Table 3).

Common method variance test

The ULMF results indicated that the original four-factor measurement model demonstrated an acceptable fit to the data, χ^2 (293) = 517.57, RMSEA = 0.05, CFI = 0.95, TLI = 0.95, and SRMR = 0.04. After the inclusion of the common method factor, the model demonstrated improved fit, χ^2 (267) = 414.10, RMSEA = 0.04, CFI = 0.97, TLI = 0.96, and SRMR = 0.030. Moreover, the absolute changes in the standardized loadings of most items on their respective latent variables were below 0.20, suggesting that CMV did not constitute a serious concern for the measurement model.

Results

Descriptive statistics

Table 4 presents the descriptive statistics for the latent variables, including means, standard deviations, skewness, kurtosis and variance inflation factors (VIFs). The skewness values of all latent variables fell within ±1, and the kurtosis values fell within ±3, indicating acceptable normality. All VIFs were below the recommended threshold of 5, indicating that multicollinearity was not a concern. No missing data were identified in the final retained sample.

The mediating role of GSE

Table 5 presents the results of the moderated mediation analysis, and Figure 1 displays the path coefficients for the proposed model. Regarding the mediating role of GSE, the results showed that SL was positively related to GSE (B = 0.45, 95% CI [0.34, 0.55], $p < 0.001$), which in turn was positively associated with SWL (B = 0.43, 95% CI [0.29, 0.57], $p < 0.001$). The indirect effect of SL on SWL through GSE was significant (B = 0.19, 95% CI [0.12, 0.27], $p < 0.001$), thereby supporting **Hypothesis 2**. Moreover, the direct effect of SL on SWL was significant (B = 0.22, 95% CI [0.09, 0.34], $p < 0.01$), supporting **Hypothesis 1** and indicating that GSE partially mediated the relationship between SL and SWL.

Moderated mediation analysis

Table 5 shows that the interaction term between SL and IJ was positively associated with GSE (B = 0.27, 95%

Table 3. Comparison of model fit

Model	χ^2	df	χ^2/df	RMSEA	CFI	TLI	SRMR
Model 1: SL; IJ; GSE; SWL	517.57	293	1.77	0.05	0.95	0.95	0.04
Model 2: SL+IJ; GSE; SWL	1123.01	296	3.79	0.09	0.83	0.81	0.09
Model 3: SL+IJ+GSE; SWL	1840.73	298	6.18	0.13	0.68	0.66	0.11
Model 4: SL+IJ+GSE+SWL	2213.68	299	7.40	0.14	0.61	0.57	0.12

Note. SL = servant leadership, IJ = interpersonal justice, GSE = general self-efficacy, SWL = satisfaction with life, χ^2 = chi-square, df = degrees of freedom, χ^2/df = ratio of chi-square to degrees of freedom, RMSEA = root mean square error of approximation, CFI = comparative fit index, TLI = Tucker-Lewis index, and SRMR = standardized root mean square residual.

Table 4. Descriptive statistics

Variable	Mean	SD	Skewness	Kurtosis	VIFs
SL	3.68	0.88	–0.37	–0.88	1.34
IJ	3.27	0.93	–0.12	–0.89	1.10
GSE	3.54	0.83	–0.21	–0.10	1.43
SWL	3.72	0.91	–0.44	–0.96	—

Note. SL = servant leadership, IJ = interpersonal justice, GSE = general self-efficacy, SWL = satisfaction with life, SD = standard deviation, VIFs = variance inflation factors. "—" indicates Not applicable (N/A).

Table 5. Results of path coefficient testing

Path	B	SE	95% CI	
			LLCI	ULCI
SL → GSE	0.45***	0.05	0.34	0.55
GSE → SWL	0.43***	0.07	0.29	0.57
SL → SWL	0.22**	0.06	0.09	0.34
SL → GSE → SWL	0.19***	0.04	0.12	0.27
IJ → GSE	0.19***	0.05	0.10	0.28
SL × IJ → GSE	0.27***	0.05	0.17	0.37
R^2 (GSE) = 0.41; R^2 (SWL) = 0.38.				

Note. SL = servant leadership, IJ = interpersonal justice, GSE = general self-efficacy, SWL = satisfaction with life, B = unstandardized regression coefficient, SE = standard error, 95% CI = 95% confidence interval, LLCI = lower limit of the confidence interval, ULCI = upper limit of the confidence interval, ***$p < 0.001$, **$p < 0.01$ (two-tailed).

CI [0.17, 0.37], $p < 0.001$), indicating that IJ significantly moderated the relationship between SL and GSE, thereby supporting **Hypothesis 3**. Figure 2 further illustrates that the positive association between SL and GSE was stronger at high levels of IJ than at low levels.

Building on this result, this study further examined whether the indirect effect of SL on SWL through GSE varied across different levels of IJ. The findings indicated that the conditional indirect effect was statistically significant at low levels (−1 SD) of IJ (B = 0.08, 95% CI [0.02, 0.15], $p = 0.016$), mean levels of IJ (B = 0.19, 95% CI [0.12, 0.27], $p < 0.001$), and high levels (+1 SD) of IJ (B = 0.30, 95% CI [0.19, 0.41], $p < 0.001$). Additionally, IMM was significant (IMM = 0.12, 95% CI [0.06, 0.18], $p < 0.001$), indicating that the indirect effect varied significantly as a function of IJ. Therefore, **Hypothesis 4** was supported.

Discussion

This study investigated the relationship between SL and SWL among Chinese K-12 schoolteachers by testing a moderated mediation model in which GSE served as a mediator and IJ as a moderator. The findings revealed that SL was positively associated with teachers' SWL and that this relationship was partially mediated by GSE. Furthermore, IJ strengthened the indirect effect of SL on SWL through GSE, such that the mediating effect was more pronounced when teachers perceived higher levels of IJ.

SL and SWL

The present study found a positive association between SL and teachers' SWL. This finding is consistent with Latif et al. (2021), who reported a relationship between SL and SWL among university teachers in Spain, China, and Pakistan, as well as with the findings of Quinteros-Durand et al. (2023) based on a sample of Peruvian teachers. The present study extends this body of research by identifying a similar association among Chinese K-12 schoolteachers.

This association may be particularly meaningful in the Chinese K-12 educational context, where teachers' responsibilities often extend beyond classroom instruction to include student management, parent communication, administrative tasks, and performance-related demands (Shen, 2009). These sustained and emotionally demanding responsibilities may contribute to occupational stress that extends beyond the work domain and shapes teachers' evaluations of their overall life circumstances (Lee & Shin, 2017). School administrators with SL characteristics respond to teachers' practical difficulties, respect their professional judgment, and provide appropriate autonomy (Crippen & Willows, 2019). These features of SL may therefore help explain its positive association with teachers' SWL (Chughtai, 2018).

GSE as a psychological mechanism linking SL to SWL

The present study found that teachers' GSE mediated the association between SL and their SWL. Whereas prior research has primarily documented a positive relationship between SL and teachers' SWL (Latif et al., 2021; Quinteros-Durand et al., 2023), the present study further identifies GSE as a proximal psychological mechanism

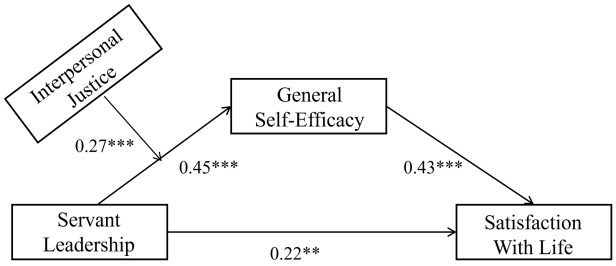

Figure 1. The path coefficients of the moderated mediation model. *Note*. Path values represent unstandardized regression coefficients (B). ***$p < 0.001$, **$p < 0.01$ (two-tailed).

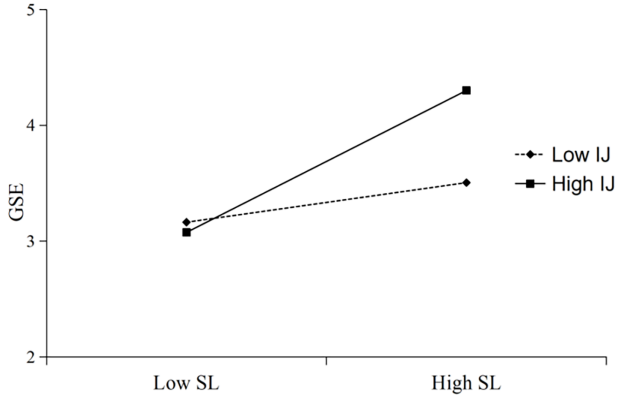

Figure 2. Moderating effect of IJ on the relationship between SL and GSE. *Note*. IJ = interpersonal justice, SL = servant leadership, GSE = general self-efficacy.

underlying this association. Specifically, the supportive resources associated with SL may contribute to higher SWL, partly by strengthening teachers' GSE. This finding advances current understanding of the psychological process through which SL is associated with teachers' SWL.

GSE reflects individuals' general belief in their ability to act effectively and achieve desired goals (Bandura, 1999). SL is typically reflected in leaders' emphasis on teachers' professional growth, provision of work-related support, and greater discretion in instructional decision-making (Ouyang et al., 2026). Teachers with higher GSE may therefore be better positioned to proactively and effectively recognize and utilize these relational resources, and this tendency may be accompanied by stronger intrinsic motivation and more positive affective experiences (Marcionetti & Castelli, 2023). More importantly, these positive experiences may extend beyond the immediate work domain and inform teachers' evaluations of their lives as a whole (Azizli et al., 2015). When teachers believe that they can cope with challenges, take effective action, and attain desired goals, they may experience a stronger sense of control and professional accomplishment (Luque-Reca et al., 2022), while also reporting greater confidence in their ability to manage their professional circumstances and broader life demands (Meng, 2020). In this context, they may evaluate their current life circumstances and future prospects more positively, and such evaluations may be associated with higher SWL.

IJ as a boundary condition of the relationship between SL and GSE

The present study found that IJ moderated the association between SL and teachers' GSE. This finding suggests that the strength of this positive association may vary according to teachers' perceptions of IJ in the school context. By identifying IJ as a boundary condition, the present study extends prior research that has primarily examined the direct relationship between SL and teachers' GSE (Zada et al., 2023).

One possible explanation is that high IJ may enhance the perceived credibility of SL. When school administrators treat teachers courteously, respectfully, and appropriately, preserve their dignity, and refrain from dismissive or inappropriate remarks, teachers may be more inclined to interpret the care, feedback, and empowerment characteristic of SL as sincere and dependable forms of support (Qandeel & Kuráth, 2025). Such interpretations may be associated with more positive judgments of personal capability and, consequently, stronger GSE (Dahleez & Aboramadan, 2025). Conversely, disrespectful or inappropriate interpersonal treatment may cause teachers to question the sincerity of SL, making them less likely to view these supportive behaviors as credible resources for developing GSE (Rabiul et al., 2022).

Implications for theory, research and practice

This study offers several theoretical implications. First, by identifying the mediating role of GSE, the study deepens the theoretical explanation of the mechanism underlying the association between SL and teachers' SWL. The findings indicate that the supportive resources provided through SL are more strongly associated with teachers' overall evaluations of their lives when these resources are internalized as GSE beliefs (Azizli et al., 2015). In this regard, the present study connects SL research with social cognitive theory and suggests that teachers' SWL is associated with the extent to which they develop positive GSE beliefs.

Second, by identifying the moderating role of IJ, this study further clarifies the contextual conditions under which SL is more strongly associated with teachers' GSE. The findings indicate that when teachers experience more respectful, courteous, and appropriate treatment in their daily interactions with school leaders, they may be more likely to perceive SL behaviors as credible and legitimate and to internalize the supportive resources provided by leaders in ways that reinforce their GSE beliefs (Meng, 2020). This finding further extends the theoretical explanation of the relationship between SL and teachers' GSE by suggesting that the strength of this association reflects not only the availability of external supportive resources but also teachers' perceptions of interpersonal fairness within the organizational environment.

From a practical perspective, school principals may consider incorporating SL practices into their efforts to support teachers' SWL. Specifically, when making decisions that affect teachers' work, principals can provide meaningful opportunities for teachers to participate, allocate responsibilities in accordance with their professional strengths, grant appropriate autonomy, and address their

developmental needs through constructive feedback and individualized support (Ouyang et al., 2026). Principals should also foster a school environment characterized by IJ, with particular emphasis on respecting teachers' dignity and professional standing. When assigning tasks, providing work-related feedback, or managing disagreements, principals should engage with teachers in a courteous, considerate, and non-degrading manner. Overall, these leadership practices may be associated with more positive GSE beliefs and higher levels of SWL among teachers.

Limitations and future research directions

This study is subject to several limitations, which also point to avenues for future research. First, although the present study focuses on teachers' GSE and IJ to explain how SL relates to teachers' SWL, the development of teachers' SWL is likely shaped by multiple pathways and levels of analysis beyond those examined here. In addition to GSE, prior studies have shown that SL in schools is positively related to teachers' organizational citizenship behavior (Du & Gan, 2025), innovative behavior (Xu & Wu, 2025), and job satisfaction (Saadaoui et al., 2024). Future research could incorporate these variables into a more comprehensive analytical framework to compare the relative explanatory power of alternative pathways and further enrich our understanding of how SL relates to teachers' SWL.

Second, this study relies primarily on teachers' self-reported data. Although common method bias was statistically assessed and found to be within an acceptable range, it cannot be ruled out completely. Future research could incorporate multisource data from school leaders, colleagues, or students to enhance the robustness of the findings. In addition, the cross-sectional design constrains causal inference. Longitudinal and time-lagged designs would help clarify the dynamic process through which SL may be related to teachers' SWL via GSE and provide a more robust basis for testing the conditional indirect effect of IJ.

Third, because the sample was drawn from teachers in Liaoning Province, China, the generalizability of these findings to other regions, educational levels, and cultural contexts remains uncertain. Future studies are encouraged to replicate this research across a broader range of geographic and cultural settings and with more diverse school types and participant groups to test the cross-context robustness of the moderated mediation model and to distinguish more clearly between mechanisms that are specific to educational settings and those that may generalize to broader organizational contexts.

Conclusions

This study developed a moderated mediation framework to clarify how and under what conditions SL is associated with teachers' SWL in the Chinese K-12 school context. The findings indicate that SL is associated with higher SWL partly through stronger GSE and that IJ moderates the association between SL and GSE.

Theoretically, drawing on SCT and FHT, this study clarifies how and under what conditions SL is associated with teachers' SWL. The findings suggest that this positive association is stronger when teachers internalize the supportive resources provided through SL as stronger GSE beliefs and, at higher levels of IJ, are more likely to perceive SL behaviors as credible and legitimate. In doing so, the study further clarifies the psychological mechanism and contextual boundary condition underlying this association.

Practically, the findings underscore the importance of promoting SL practices and cultivating a fair, respectful, and transparent interactional climate in schools to support teachers' SWL. The findings further suggest that school leaders should attend to teachers' developmental needs, professional autonomy, and opportunities for voice and feedback, while educational authorities should incorporate competencies in listening, empowerment, fairness awareness, and teacher development into the selection, training, and evaluation of principals and school administrators. Collectively, these findings offer actionable implications for school leadership and governance practices aimed at promoting teacher well-being in Chinese K-12 schools.

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