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How Social-Emotional Competence of Chinese Rural Kindergarten Teachers Affects Job Burnout: an Analysis Based on Mediating and Moderating Effects

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Abstract
Although teacher social-emotional competence (SEC) has been recognized as a crucial indicator of teacher professional development as well as an effective predictor of their psychological well-being, little is known about how teachers' SEC contributes to job burnout. The objectives of the present research were to explore the impact of SEC on job burnout and its internal mechanisms among rural kindergarten teachers in China. In total, 446 rural kindergarten teachers were assessed using SEC, burnout, self-efficacy, job satisfaction and organizational trust scales. The results showed that the SEC of rural kindergarten teachers not only directly predicted job burnout, but also indirectly impacted it via the separate mediating effects of self-efficacy and job satisfaction and the chain-mediating effects of both variables. Furthermore, organizational trust can effectively moderate the effect of teachers' SEC on burnout. These results suggest that attention is needed to develop rural kindergarten teachers' individual resources (e.g., SEC and self-efficacy) and establish a more supportive and trustworthy organizational environment to alleviate their job burnout.

Keywords Social-emotional competence · Job burnout · Self-efficacy · Job satisfaction · Organizational trust · Rural kindergarten teachers in China

Introduction

Job burnout is typically described as persistent fatigue and an extreme psychological response triggered by a demanding work environment coupled with inadequate resources, which is marked by emotional exhaustion, depersonalization, and low accomplishment (Maslach, 2003). Kindergarten teachers, due to the specificity of the educational subjects and complex professional demands, have high levels of occupational pressure and burnout (Clipa & Boghean, 2015; Li et al., 2020). In China, approximately 53% of kindergarten teachers (teaching children between 3–6 years of age) suffer from burnout (Li et al., 2020). Especially for rural kindergarten teachers in western China, the risk of burnout can be heightened by various factors. First, these teachers often have lower salaries and social status compared to teachers at other levels of education and in cities, as well as limited teaching resources (Gong et al., 2020). In addition, the teacher–child ratio in most rural kindergartens greatly exceeds the Chinese government's regulations (1:7–1:9) (Ministry of Education, PRC, 2013; Lu et al., 2020). As a result, teachers have to expend a great deal of energy maintaining class order, coping with children's challenging behavior and carrying out heavy teaching work (Gong et al., 2020; Yang, 2014). Therefore, rural kindergarten teachers are enduring severe emotional issues associated with stress and burnout. Research has confirmed that job burnout affects not only kindergarten teachers' physical and psychological fitness and the quality of classroom teaching (Ansari et al., 2022; Zhang et al., 2022), but also leads to their absenteeism and even resignation (Li & Yao, 2022). This has brought great challenges to the development of high-quality early childhood education in rural areas of western China (Hu et al., 2016). Against this background, the factors that can

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protect kindergarten teachers from burnout and aid the development of quality early childhood education in rural China need to be investigated.

Research indicates that China's cultural, social, and educational conditions contribute to a unique mechanism of teacher burnout development. Specifically, the antecedents of burnout have been explored mainly in terms of job demands (role responsibility, children's performance), job resources (social support), and personal resources (emotional intelligence [EI]) (Cheng et al., 2023). However, it is striking that most of the job resources explored in Chinese teacher burnout research have been limited to the social support available to teachers, while other key resources (e.g., trust resources) have been largely ignored. Meanwhile, individual social-emotional competence (SEC) resources, which have received much attention in recent years, have also not been adequately examined in burnout research. An active area of burnout research relates to personal resources or traits that may interact with social and organizational factors, either exacerbating their effects or acting as a buffer against them (Chang, 2013). Therefore, how SEC constructed by rural culture influences kindergarten teachers' burnout, and how organizational trust moderates the relationship between the two, are the main concerns of this study.

Teachers' Social-Emotional Competence and Job Burnout

SEC was first promoted in children's education and, given its beneficial effects, is now becoming an essential professional literacy for teachers in the twenty-first century. It is a broad construct based on the theory of EI that encompasses individuals' capabilities to identify, articulate and regulate their emotions and thoughts, interact with others in complex situations, and adapt to changing conditions (Jennings & Greenberg, 2009; Schoon, 2021). As a consequence of social and emotional learning (SEL), the key elements of teachers' SEC include self-awareness, self-management, social awareness, relationship skills, and responsible decision-making (CASEL, 2020). Although less is known about teachers' SEC compared to the large body of research on children, theory and limited emerging research suggest that socially and emotionally skilled teachers rarely suffer burnout in the workplace (Oliveira et al., 2021). On the one hand, the intrapersonal dimension of teachers' SEC (e.g., perceiving, managing emotions) is associated with higher emotional clarity (Aldrup et al., 2020). Thus, teachers with higher SEC are better able to recognize negative emotional triggers of stress responses and use more constructive thought patterns to manage them (Mérida-López & Extremera, 2017). On the other hand, the interpersonal dimension of teachers' SEC (e.g., social awareness, relational skills) has been considered as a promoter of higher-quality social interactions with principals, colleagues and children (Collie, 2017; Garner et al., 2014), which would help teachers to obtain more social support to mitigate burnout (Fiorilli et al., 2017). Taken together, teachers' SEC may negatively predict job burnout.

The Mediating Role of Teacher Self-Efficacy

Self-efficacy is seen as a vital internal resource that determines one's responses to obstacles and challenges (Bandura, 1977). Teacher self-efficacy concerns teachers' subjective perceptions and appraisals of their capacity to positively influence students' learning and behavior, which is at the core of teachers' educational beliefs (Wheatley, 2002). Tschannen-Moran et al. (2001) divided teacher self-efficacy into three distinct elements, including efficacy of classroom management, instructional strategies and student engagement. As posited by social cognitive theory, knowing and regulating one's emotional state is the primary basis for building self-efficacy (Bandura, 1977); these are the core components of SEC (CASEL, 2020). Although the association between teachers' multidimensional SEC and self-efficacy has not been widely demonstrated, teachers trained in SEC were better able to notice and respond to children's affective and behavioral needs, which contributes to improving teachers' self-efficacy in building classroom relationships and teaching (Domitrovich et al., 2016). In addition, teacher self-efficacy can protect them against burnout (Daniel & Van Bergen, 2023). Those with higher self-efficacy may more frequently perceive stressful situations as challenges rather than threats and thus experience less emotional exhaustion and cynicism (Skaalvik & Skaalvik, 2010), whereas those with lower self-efficacy may worry about having inadequate resources to undertake challenging tasks and are more likely to feel emotionally drained and to behave listlessly (Malinen & Savolainen, 2016). Based on this, we hypothesize that teacher self-efficacy mediates the effect of SEC on job burnout.

The Mediating Role of Teacher Job Satisfaction

Job satisfaction involves people making evaluative judgments about their work (Weiss, 2002). Skaalvik and Skaalvik (2010) conceptualized teachers' job satisfaction as a set of psychological feelings and affective reactions to their work experience. From a theoretical perspective, teachers' SEC may positively predict their job satisfaction. Specifically, socially and emotionally competent teachers are more likely to deal effectively with complex interpersonal relationships in teaching contexts, make responsible decisions about their

work, and manage their thoughts and emotions in a healthy way, which is positively associated with thriving at work (e.g., in terms of job satisfaction and organizational commitment) (Collie & Perry, 2019). Limited empirical research supports this relationship (Aldrup et al., 2020; Collie, 2017). Perse et al. (2020) found that teachers' emotional, social and intercultural competencies explained 34% of the variance in their job satisfaction, with interpersonal competencies being the strongest predictor. Meanwhile, job satisfaction can significantly predict affective factors such as job burnout. In this regard, research thus far shows that job satisfaction prevents individuals from experiencing job burnout (Yorulmaz et al., 2017). According to Friedman (2000), teachers' dissatisfaction with the difference between "expected" and "actual" teaching experience may lead to burnout, and the lower the satisfaction, the higher the degree of burnout. In view of this, our hypothesis is that job satisfaction is another variable mediating the effect of SEC on job burnout.

The Chain-mediating Roles of Self-efficacy and Job Satisfaction

As mentioned previously, both self-efficacy and job satisfaction appear to mediate the association between teachers' SEC and job burnout. Furthermore, it has been suggested that teachers' satisfaction is influenced by the extent to which they have a strong sense of self-efficacy in carrying out their professional duties (Moè et al., 2010). Social cognitive career theory (SCCT) assumes that there is a direct pathway from self-efficacy to job satisfaction (Lent & Brown, 2006). In accordance with this theory, teachers with self-efficacy consider themselves capable of performing the expected teaching work and tend to achieve professional success through persistence, which correspondingly generates more intrinsic satisfaction from their work (Granziera & Perera, 2019). This inference has been supported by empirical research. For example, Klassen and Chiu (2010) reported that teacher self-efficacy regarding classroom management and instructional strategies was a significant predictor of their job satisfaction. Other research has also shown a significant correlation between teacher self-efficacy and job satisfaction (Li et al., 2017). We thus inferred that teachers' SEC will affect job burnout via the chain intermediary roles of self-efficacy and job satisfaction.

The Moderating Role of Organizational Trust

Prior studies have shown that employees' internal resources are associated with psychological well-being (burnout), but this relationship may be moderated by contextual factors within the organization, such as organizational trust (Dirks & Ferrin, 2001). Organizational trust is reflected in employees' trust in the interpersonal relationships and management of the organization (Mubashar et al., 2022), which is a valuable resource for any organization. In the current research, organizational trust refers to how teachers perceive the trustworthiness of their managers, colleagues, and the educational institution as a whole (Van Maele & Van Houtte, 2012).

According to the job demand-resource (JD-R) model, professional burnout symptoms occur when an employee's resources cannot fulfil the demands of the job (Bakker et al., 2005). Across organizational settings, however, if employees perceive their leaders and colleagues to be trustworthy, their psychological resources will increase, thus contributing to the alleviation of job burnout (Bunjak et al., 2023; Lambert et al., 2012). Conversely, low trust may lead to self-alienation, feelings of powerlessness and conflict, accelerating the depletion of emotional resources (Simha et al., 2014). Research has shown that both interpersonal and managerial trust within an organization can promote positive attitudes toward work among employees and prevent job burnout (Jiang & Probst, 2019). However, there is paucity of relevant studies in the educational literature, particularly among early childhood educators. Limited research has found that trust, support, open communication and a respectful organizational climate can modulate the relationship between teachers' personal emotional competence and indicators of their well-being (Li et al., 2018). Nevertheless, no study has reported that organizational trust is a moderating factor in the association between teacher' SEC and burnout, and the magnitude and direction of the moderating effect are unclear.

Aims of the Study

Given the urgent need to support the psychological well-being of rural kindergarten teachers, this study aimed to investigate the personal and workplace organizational resources associated with burnout among rural kindergarten teachers. The research to date provides a starting point for understanding the associations among teachers' SEC, self-efficacy, job satisfaction, organizational trust, and job burnout. However, empirical evidence is still lacking in certain educational areas, especially for rural kindergarten teacher groups. It is necessary to explore the roles self-efficacy, job satisfaction and organizational trust play in the relationship between SEC and burnout. Specifically, this study addressed the following three questions. First, what is the relationship between SEC and job burnout among rural kindergarten teachers? Second, do self-efficacy and job satisfaction mediate the relationship between SEC and job burnout? Third, does organizational trust moderate the relationship between SEC and job burnout?

Based on the available theoretical and empirical evidence, our hypotheses are as follows:

H1: SEC positively predicts job burnout;
H2: Self-efficacy and job satisfaction mediate the effect of SEC on job burnout;
H3: SEC can indirectly predict job burnout through the chain-mediating effects of self-efficacy and job satisfaction;
H4: Organizational trust moderates the effect of SEC on job burnout.

Methodology

A quantitative cross-sectional study was used to investigate the research questions in the current study, and all variables have been validated in previous empirical studies. The participants, procedures and measurement instruments are detailed below.

Participants and procedures

This current study used cluster random sampling to select 38 rural kindergartens in three provinces in western China, namely, Shaanxi, Sichuan and Xinjiang Uygur Autonomous Region. Due to the COVID-19 pandemic, we only conducted three rounds of data collection from June 2021 to July 2022, conducted by graduate students in early childhood education trained in rigorous testing. After communication and approval with the head of the kindergarten, 464 questionnaires were distributed, all of which were completed by full-time kindergarten teachers (excluding caregivers). After excluding incomplete questionnaires and those with standardized or repeated responses, a total of 446 valid questionnaires were collected, with an effective response rate of 96.12%. Of the participants, 428 (96.0%) were female and 18 (4.0%) were male, with a mean teaching experience of 6.17 years (standard deviation [SD] = 6.27). More than half (52.7%) of the teachers were aged 30 years or younger, 154 (34.5%) were aged 31–40 years, and 57 (12.8%) were aged 41 years or older. Regarding educational background, 187 teachers (41.9%) had a college degree and 194 (43.5%) had a bachelor's degree or higher (Table 1).

Instruments

Teacher Social-Emotional Competence Scale

We developed a SEC scale for kindergarten teachers in China based on the five core skills of SEL proposed by the Collaborative for Academic, Social, and Emotional Learning (CASEL) in the United States. The revised scale consists of 35 items and five dimensions: self-cognition (e.g., "I can recognize the impact that my emotions can have on children"), self-management (e.g., "I'm able to continuously self-reflect and self-regulate in the process of achieving my goals"), social cognition (e.g., "I am keenly aware of changes in children's expressions, tone of voice, mood, etc."), interpersonal communication (e.g., "When in interpersonal conflict with others, I can handle the conflict correctly") and responsible decision-making (e.g., "Before making a decision, I will carefully consider the consequences of that decision"). Items are scored on a five-point scale, where 1 = *completely disagree* and 5 = *completely agree*. Higher scores indicate higher SEC of rural kindergarten teachers. Confirmatory factor analysis showed that the structural validity of the scale ($\chi^2/df = 2.87 < 3$, RMSEA = 0.07 < 0.08, CFI = 0.89, TLI = 0.88, IFI = 0.89) was acceptable. The Cronbach's alpha value of the total scale was 0.97, and the Cronbach's alpha values of the subdimension scales were above 0.80.

Table 1 Demographic Information of the Participants ($N = 446$)

Variable	Categories of variable	Number (N)	Percent (%)
Gender	Male	18	4.0
	Female	428	96.0
Age	30 or younger	235	52.7
	31–40 years	154	34.5
	41 or older	57	12.8
Teaching experience	≤5 years	249	55.8
	6–10 years	128	28.7
	≥11 years	69	15.5
Educational background	High school education or below	65	14.6
	College degree	187	41.9
	Bachelor's degree or above	194	43.5

Teacher Self-Efficacy Scale

The Teacher Self-Efficacy Scale (TSES) comprises 12 items and three sub-dimensions (Tschannen-Moran & Hoy, 2001): providing student engagement (e.g., "I'm able to ask the children valuable questions during the lesson"), using instructional strategies (e.g., "I'm able to evaluate children from multiple perspectives"), and classroom management (e.g., "I'm able to keep the children disciplined in the class"). The Chinese version of the TSES used in the present research was validated by Wu and Zhan (Wu & Zhan, 2017). Kindergarten teachers were asked to score each item on a 5-point Likert scale ranging from "very inconsistent" to "very consistent". The higher the total score, the higher the level of teacher self-efficacy. The Cronbach's alpha value of the scale was 0.83.

Teaching Satisfaction Scale

The scale used in this study was developed by Ho and Au (Ho & Au, 2006) to measure the overall job satisfaction of rural kindergarten teachers. This scale comprises five items (e.g., "I have the qualities important to be an early childhood teacher"). Response options range from 1 (*totally disagree*) to 5 (*totally agree*). Higher scores indicate higher levels of job satisfaction. In the current sample, the Cronbach's alpha value was 0.85.

The Maslach Burnout Inventory-General Survey

This 16-item self-report measure evaluates the symptoms of teacher burnout (Maslach et al., 1986) according to three dimensions: emotional exhaustion (e.g., "Work makes me feel like I am on the verge of a breakdown"), depersonalization (e.g., "I became less and less concerned about whether the work I was doing was making a contribution or not") and personal accomplishment (e.g., "I feel very happy when I achieve something at work"). Items are rated on a 5-point frequency scale, where 1 = *almost never* and 5 = *almost always*. The personal accomplishment dimension is reverse scored. Higher scores indicate that kindergarten teachers experience more burnout. In the current sample, the Cronbach's alpha value was 0.88.

Organizational Trust Scale

The organizational trust scale was developed by Robinson (Robinson, 1996) and includes six items (e.g., "Overall, I believe that the motives and intentions of the kindergarten are good") to evaluate the trust of the teachers in their organizations. For rural kindergarten teachers, the Chinese version of the organizational trust scale has good applicability (Jiang & Probst, 2019). The scale uses a 5-point Likert scale (1 = *very inconsistent*, 5 = *very consistent*). Cronbach's alpha for this scale was 0.94 in the current study.

Statistical Analyses

SPSS 24.0 (IBM Corp., Armonk, NY, USA) was used to calculate descriptive data (i.e., means, SDs, and correlations between variables). The mediating effects of self-efficacy and job satisfaction and the moderating effects of organizational trust were analyzed using the SPSS macro program (Hayes, 2012), which generates a 95% confidence interval based on 5000 bootstrap samples to test for significance. Following Hayes (2012), a variable was considered to have a significant mediating or moderating effect if the confidence interval did not include zero.

Results

Descriptive Statistics and Correlations

The means, SDs, and correlation coefficients of teachers' teaching experience, educational background, SEC, self-efficacy, job satisfaction, job burnout, and organizational trust are shown in Table 2. Teaching experience was significantly correlated with teachers' SEC and self-efficacy ($r = 0.12$, $p < 0.05$; $r = 0.11$, $p < 0.05$). Educational background was significantly correlated with burnout and organizational trust ($r = 0.20$, $p < 0.01$; $r = -0.14$, $p < 0.01$). Teachers' SEC was positively correlated with self-efficacy, job satisfaction, and organizational trust ($r = 0.73$, $p < 0.001$; $r = 0.55$, $p < 0.001$; $r = 0.50$, $p < 0.001$). Self-efficacy was positively correlated with job satisfaction ($r = 0.59$, $p < 0.001$), and organizational trust ($r = 0.51$, $p < 0.001$). Job satisfaction was positively correlated with organizational trust ($r = 0.44$, $p < 0.001$). Teachers' SEC, self-efficacy, job satisfaction, and organizational trust were negatively correlated with job burnout ($r = -0.50$, $p < 0.001$; $r = -0.47$, $p < 0.001$; $r = -0.46$, $p < 0.001$; $r = -0.39$, $p < 0.001$).

Chain Mediation Model Analysis

Teachers' SEC, self-efficacy, job satisfaction, and burnout were significantly related, meeting the statistical requirements for further mediation analysis between self-efficacy and job satisfaction (Wen & Ye, 2014). Mediating effects were analyzed using Model 6 of the SPSS macro program, while controlling for teaching experience and educational background, which are considered to be the demographic variables most relevant to teachers' emotional competence, psychological well-being, and self-efficacy (Cheng et al., 2022b; Klassen & Chiu, 2010). The results of our correlation analyses confirm this (see Table 2).

Table 2 Descriptive and Correlations among Study Variables

	1	2	3	4	5	6	7
1.Teaching experience	1						
2.Educational background	0.14**	1					
3.Teachers' SEC	0.12*	-0.02	1				
4.Self-efficacy	0.11*	0.03	0.73***	1			
5.Job satisfaction	0.02	-0.01	0.55***	0.59***	1		
6.Job burnout	-0.07	0.20**	-0.50***	-0.47***	-0.46***	1	
7.Organizational trust	0.002	-0.14**	0.50***	0.51***	0.44***	-0.39***	1
$M \pm SD$	6.17 ± 6.27		4.18 ± 0.42	4.19 ± 0.51	3.95 ± 0.63	4.45 ± 0.56	1.75 ± 0.46

Teaching experience (≤5 years = 1; 6–10 years = 2; ≥11 years = 3), educational background (high school education or below = 1; college degree = 2; bachelor degree or above = 3)

** $p < 0.05$, * $p < 0.01$, *** $p < 0.001$

The findings of the regression analysis of the relationship between teachers' SEC and job burnout are presented in Table 3, which indicates that SEC has a significant negative predictive effect on job burnout ($\beta = -0.49$, $p < 0.001$). When self-efficacy and job satisfaction were entered into the regression equation, SEC significantly predicted self-efficacy ($\beta = 0.73$, $p < 0.001$) and job satisfaction ($\beta = 0.25$, $p < 0.001$), self-efficacy significantly predicted job satisfaction ($\beta = 0.41$, $p < 0.001$), and self-efficacy and job satisfaction were significant negative predictors of job burnout ($\beta = -0.16$, $p < 0.05$; and $\beta = -0.22$, $p < 0.001$, respectively). Finally, the direct effect of teachers' SEC on job burnout was significantly decreased ($\beta = -0.26$, $p < 0.001$).

The strength of the mediating effects of self-efficacy and job satisfaction on the relationship between SEC and job burnout are presented in Table 4. A chain mediation model between SEC and job burnout is presented in Fig. 1. The findings of the path analysis showed that teacher self-efficacy and job satisfaction played a significant mediating role in the relationship between rural kindergarten teachers' SEC and job burnout, explaining 46.95% of the total variance. More specifically, the mediation effect was the result of three indirect effects: pathway 1: SEC → self-efficacy → job burnout (-0.11), pathway 2:

Table 3 Regression Analysis of the Relationship between Teachers' SEC and Job Burnout

Regression equation		Fitting index		Significance		
Result variable	Predictor variable	R	R^2	F	β	t
Job burnout		0.54	2.29	59.79***		
	Teaching experience				-0.02	-0.55
	Educational background				0.25	4.64***
	Teachers' SEC				-0.49	-12.28***
Self-efficacy		0.73	0.53	165.13***		
	Teaching experience				0.01	0.01
	Educational background				0.06	1.25
	Teachers' SEC				0.73	22.16***
Job satisfaction		0.62	0.38	68.08***		
	Teaching experience				-0.02	-0.68
	Educational background				-0.03	-0.53
	Teachers' SEC				0.25	4.58***
	Self-efficacy				0.41	7.57***
Job burnout		0.59	0.35	46.56***		
	Teaching experience				-0.02	-0.72
	Educational background				0.26	4.97***
	Teachers' SEC				-0.26	-4.56***
	Self-efficacy				-0.16	-2.60*
	Job satisfaction				-0.22	-4.43***

* $p < 0.5$, ** $p < 0.01$, *** $p < 0.001$

Table 4 Self-efficacy and Job Satisfaction in the Mediation Effect Analysis

	Indirect effect value	Boot SE	Boot LLCI	Boot ULCI	Relative mediation effect
Total indirect effect	-0.23	0.05	-0.33	-0.14	46.95%
SEC → SE → JB	-0.11	0.04	-0.20	-0.03	22.80%
SEC → JS → JB	-0.05	0.02	-0.09	-0.02	10.99%
SEC → SE → JS → JB	-0.07	0.02	-0.10	-0.03	13.16%

SEC = social-emotional competence, SE = self-efficacy, JS = job satisfaction, JB = job burnout

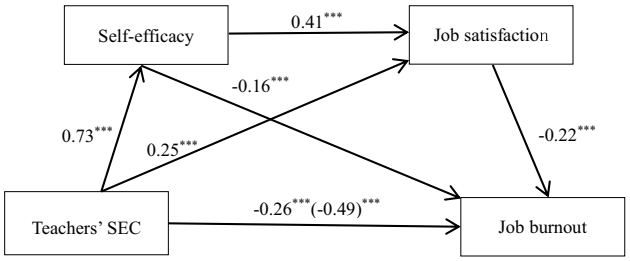

Fig. 1 Chain mediation model of teachers' SEC and job burnout

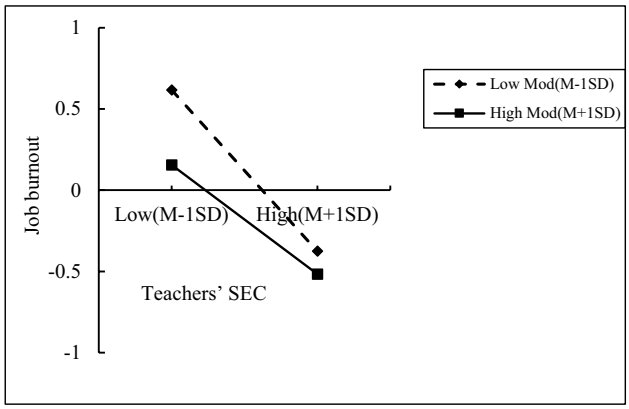

Fig. 2 The interaction effect between teachers' SEC and organizational trust for job burnout

SEC → job satisfaction → job burnout (-0.05), and pathway 3: SEC → self-efficacy → job satisfaction → job burnout (-0.07). These three indirect effects accounted for 22.80%, 10.99%, and 13.16% of the total effect, respectively, the 95% CI did not contain zero, and all effects were significant.

Moderating Model Analysis

The findings of the moderating effects analysis demonstrated that the interaction between teacher SEC and organizational trust was a significant predictor of job burnout ($\beta = 0.08$, $p < 0.05$). This finding indicated that the link between rural kindergarten teachers' SEC and job burnout was moderated by organizational trust. To further analyze the moderating effect of organizational trust, subjects with values + 1 SD from the mean were assigned to the high organizational trust group, and subjects with values -1 SD from the mean were assigned to the low organizational trust group; simple slope analysis was then performed (Fig. 2). The results showed that when organizational trust is high, the strength of the negative predictive effect of SEC on job burnout is less lower ($\beta = -0.34$, $t = -5.83$, $p < 0.001$) than that of SEC when organizational trust is low ($\beta = -0.50$, $t = -8.74$, $p < 0.001$).

Discussion

This study explored the underlying mechanisms through which rural kindergarten teachers' SEC mediates job burnout and also sheds light on the interaction effect of SEC and organizational trust on job burnout. Although the influence of teachers' SEC on indicators of psychological well-being (e.g., stress and burnout) is receiving increased attention from the research community, these relationships have not been systematically discussed in the context of individual- and organizational-level factors, especially in rural kindergarten teachers. Our chain mediation model showed that SEC can not only directly predict job burnout, but also indirectly predicts it through self-efficacy and job satisfaction, both separately and in combination (chain mediation effect). Moreover, organizational trust could moderate the impact of teachers' SEC on burnout. This study enhances our knowledge of kindergarten teachers' resources, showing that both the personal and organizational resources of rural Chinese kindergarten teachers must be enriched to facilitate their professional development.

Rural Kindergarten Teachers' SEC and Job Burnout

Consistent with previous research conducted on teachers of older children (Oberle et al., 2020), the findings regarding rural kindergarten teachers in this study constitute similar evidence that SEC significantly negatively predicts burnout. The overall body of evidence indicates that SEC may be an essential protective factor for mitigating burnout among

rural kindergarten teachers in China. Teachers with stronger intrapersonal SEC are more aware of and constructively regulate their emotions, thoughts and behaviors in response to change, novelty, or uncertainty (Collie & Martin, 2017), and such teachers may experience fewer symptoms of burnout. Moreover, teachers with stronger interpersonal SEC can establish good relationships with others, as well as groups, to gain support (e.g., collaborative teaching); such factors are associated with overall burnout (Ma et al., 2021). Furthermore, our findings shed more light on the motivational process of the JD-R model (Demerouti et al., 2001). Specifically, SEC can be considered a stable individual-level resource in the teaching and learning environment, playing an important role in alleviating burnout and improving rural kindergarten teachers' well-being. However, SEC is not currently prioritized in teacher development programs, despite its importance for the well-being of rural early childhood educators.

The Independent Mediating Effects of Self-efficacy and Job Satisfaction

The present research showed that self-efficacy and job satisfaction play separate mediating roles in the relationship between SEC and job burnout among rural kindergarten teachers. First, teachers' SEC can alleviate job burnout by enhancing self-efficacy. In line with the self-efficacy theory (Bandura, 1977) and previous research on future secondary school teachers (Carmen et al., 2022), the rural kindergarten teachers in this study who reported greater SEC also exhibited greater self-efficacy. More importantly, we found that SEC had greater predictive value than EI with respect to Chinese kindergarten teachers' self-efficacy (Cheng et al., 2022b). SEC involves not only perceiving and regulating emotions, which is emphasized by EI, but also perceiving and monitoring goals, behaviors, strengths, and weaknesses, as well as interpersonal factors including empathy and interpersonal interactions (CASEL, 2020). These factors have all been shown to contribute to teachers' self-efficacy in terms of classroom management, instructional strategies, and student engagement (Domitrovich et al., 2016). Self-efficacy is an effective feedback mechanism for teachers facing work pressure and conflict (Schwarzer & Hallum, 2008), determining teachers' stress levels and therefore being related to burnout. Thus, rural kindergarten teachers' SEC can indirectly influence burnout through self-efficacy. This mediation mechanism indicates that SEC and self-efficacy, characterized by longevity and resistance to change, are key constructs in the professional development of rural kindergarten teachers and together influence teachers' psychological well-being.

Second, our study indicated that rural kindergarten teachers' SEC can also affect their job burnout through job satisfaction. On the one hand, SEC significantly and positively predicted job satisfaction, which is in line with a previously described framework designed to help teachers thrive and proves that social-emotional factors can promote key organizational outcomes (Collie & Perry, 2019). However, to our knowledge, there is a paucity of empirical evidence for this in teachers. Our findings show that the benefits of SEC extend to the educational workplace, indicating that socially and emotionally competent teachers may be able to regulate emotions associated with teaching practice or the role of the teacher in healthy ways such that their work is more enjoyable and satisfying (Zinsser et al., 2016). SEC may be the key competency for kindergarten teachers in rural areas to achieve job satisfaction in the face of complex work situations. On the other hand, job satisfaction negatively predicted kindergarten teachers' job burnout. This finding is consistent with previous research suggesting that burnout may be the result of a long-term developmental process in which individuals experience a progressive decrease in job satisfaction over the course of their careers followed by burnout (Friedman, 2000).

The Chain-mediating Roles of Self-efficacy and Job Satisfaction

This study first revealed that the self-efficacy → job satisfaction pathway is a major route through which SEC influences job burnout among kindergarten teachers in rural China. Consistent with existing research findings, effective teachers have strong self-concepts; such teachers perceive greater alignment between their actual and ideal selves and are therefore more likely to be satisfied with their work (Moè et al., 2010). According to the comprehensive theoretical model of job satisfaction proposed by Lent and Brown (Lent & Brown, 2006), personality and affective characteristics can directly or indirectly affect job satisfaction through cognitive appraisal of self-efficacy and environmental support; this was confirmed in the present study, where rural kindergarten teachers with high levels of SEC could actively evaluate their own teaching ability, acquire self-efficacy, and thus experience job satisfaction. Highly satisfied teachers are enthusiastic and conscientious about their work and less likely to suffer from burnout.

The Moderating Role of Organizational Trust in the Relationship between SEC and Job Burnout

Consistent with our hypotheses, the relationship between SEC and job burnout among rural kindergarten teachers was moderated by organizational trust, and the negative predictive effect of SEC on kindergarten teachers' job burnout was stronger under conditions of low organizational trust. In other words, for rural kindergarten teachers with the same

level of SEC, the higher the perceived organizational trust, the less burnout they experience. This indicates that teacher burnout is influenced by the interplay of SEC and organization trust and, more importantly, that organization trust can alleviate burnout by compensating for a lack of individual resources, such as SEC. However, this compensatory role has not been demonstrated in previous research, such as that of Shakeel et al. (2022), who instead found that school-level resources did not moderate the relationship between individual teacher resources and burnout. A possible explanation for this finding, as noted in previous studies, is that, in human-centered professions, perceptions of trust probably provide teachers with positive feelings, such as being respected, which appears to improve motivation, enthusiasm, and work attitudes, while also reducing strain and burnout (Lambert et al., 2012; Özgür & Tektaş, 2018). A second possibility is that the high level of organizational trust of the teachers in this implies that they receive adequate organizational support, as well as experiencing a fair organizational climate and harmonious interpersonal relationships (Van Maele & Van Houtte, 2012). These factors can be considered as workplace resources available to employees and help prevent burnout (Shackleton et al., 2019). Therefore, it stands to reason that trust is an important aspect of the work environment in to the context of kindergarten teacher burnout.

Limitations and Future Research

The present study had several shortcomings that should be addressed. First, the teachers were recruited only from rural areas in three provinces of western China due to COVID-19, which may restrict the generalizability of the findings. Future research should extend the sampling area to validate the findings of this study. Second, data for several focal variables were collected through teacher self-report measures, which may lead to common methodological biases. Future research should use multiple data collection approaches to explore the SEC and work status of rural kindergarten teachers in greater depth. Third, the use of cross-sectional data limited our ability to make causal inferences. Subsequent studies could further validate the robustness of the model in this study by combining longitudinal and experimental designs. Finally, this study did not account for relational variables when exploring the mechanisms through which teachers' SEC influences burnout. Future research should augment the model by taking account of multiple perspectives, including those of teachers, organizations, and children, as well as their interrelationships.

Implications and Recommendations

Our study makes two important contributions to the existing body of research. First, the findings improve our understanding of the specific mechanisms linking SEC with burnout in rural kindergarten teachers. SEC was found to predict job burnout not only directly, but also indirectly through the mediating effects of self-efficacy and job satisfaction. This contributes to the positive effects of SEC in rural Chinese educational settings. It is therefore important to work on developing rural kindergarten teachers' SEC. One approach to this end is to target teacher-focused professional development (Corcoran & O'Flaherty, 2022). SEL interventions and mindfulness-based professional development programs have been shown in previous research to be an effective way of improving teachers' SEC (Collie, 2017). Approaches that promote teacher efficacy and job satisfaction have also shown potential (Crain et al., 2017; Emerson et al., 2017). Furthermore, these programs are cost-effective and well suited for rural areas (Cheng et al., 2022a). Accordingly, educational policymakers and administrators are advised to actively promote SEC-related intervention programs for the in-service training of rural kindergarten teachers. For example, they should be included in the curriculum of the annual National Teacher Training Project (NTTP), a large-scale in-service teacher training programme jointly launched by the China's Ministry of Education and the Ministry of Finance in 2010, that focuses on supporting the professional development of rural teachers in central and western China. In addition, based on the latest framework proposed by Collie (2020), teachers' SEC involves a cyclical and changing process shaped by a supportive daily environment characterized by a positive interpersonal relationships, feelings of belonging and security. Rural kindergarten administrators should therefore strive to promote interactions among teachers to create an organizational atmosphere of mutual support, care, tolerance and respect, and to provide psychological and emotional support for kindergarten teachers working in the countryside away from their families (the majority of China's rural kindergarten teachers live in cities).

Second, this study examined how individual and organizational resources interact to affect teacher burnout, in a break from previous analyses that considered their impact on burnout in isolation and thus extending the extant literature. Meanwhile, the findings revealed that kindergarten teachers' organizational trust prevents increased burnout caused by inadequate social and emotional resources, suggesting that rural kindergarten administrators should pay more attention to the distinctive effects of faculty trust. Research has shown that leaders play an important role in fostering high-quality, trustworthy relationships within organizations (Yin & Zheng, 2018). One potential avenue to enhance teachers' organizational trust is for the kindergarten leadership to inculcate a reliable, honest, fair, just, and trustworthy cultural atmosphere. For example, by implementing a distributed leadership style characterized

by democratic consultation, equal cooperation, and shared decision making, teachers will likely feel recognized and valued, thereby increasing their sense of trust in and dependence on the organization. In addition, the development of a standardized and transparent performance appraisal system and promotion procedures for teachers is also important for kindergarten leaders to build a culture of trust.

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Data availability Data is available with the corresponding author upon request.

Declarations

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

Conflict of Interest The authors declare that they have no conflict of interest.

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