



# The influence of job satisfaction on the relationship between professional identity and burnout: A study of student teachers in Western China

Ming-Hui Lu<sup>1</sup> · Jie Luo<sup>2</sup> · Wei Chen<sup>2</sup> · Meng-Cheng Wang<sup>3</sup>

Published online: 11 December 2019

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## Abstract

In the literature concerning Chinese student teachers, there is little research regarding the relationship between job satisfaction, professional identity, and burnout. In the current study, 267 student teachers (aged 20 to 25 years, female 58.8%) from Western China completed surveys assessing the student teachers' professional identity, job satisfaction, and burnout. Using structural equation models, results indicated that professional identity and job satisfaction could predict burnout, and the effect of professional identity on burnout was partially mediated by job satisfaction. Moreover, job satisfaction could significantly moderate the relationship between professional identity and burnout. These findings imply that professional identity and job satisfaction are critical indicators of burnout, and can be used in basic intervention strategies that decrease burnout among Western Chinese student teachers.

**Keywords** Professional identity · Job satisfaction · Burnout · Student teachers

## Introduction

Research into different cultures indicates that school teachers are likely to be confronted with various degrees of stress (Van Droogenbroeck and Spruyt 2015; Pogere et al. 2019). Even though many teachers are fond of their job and experience little strain, several studies have showed that up to one third of teachers consider teaching to be highly stressful (Hoigaard et al. 2012). As a result, many teachers feel burnout and/or low job satisfaction, and choose to leave (Cano-Garcia et al. 2005; Skaalvik and Skaalvik 2009). Studies have shown that Chinese teachers experience dissatisfaction due to high levels of work stress (Liu and Onwuegbuzie 2014). Furthermore, it has been suggested that the development of teacher burnout

begins with the student-teaching experience (Fives et al. 2007). Therefore, teacher education initiatives to help teachers manage work stress and prevent burnout should target not only experienced or in-service teachers but also novice, pre-service, and prospective teachers (Chan 2003; Taylor et al. 2019).

Student teachers gain experience through several months of student teaching as part of their college education. During this period of teaching practice, student teachers fully take on the roles and functions of in-service teachers, and thus may be considered quasi-teachers or prospective teachers. Accordingly, student teachers may experience work stress just as in-service teachers do. Studies show that the majority of student teachers are enthusiastic and perceive their work engaging, but some of them have been found to suffer from burnout symptoms that found among in-service teachers, particularly emotional exhaustion (Fives et al. 2007; Väisänen et al. 2017). For example, student teachers of Hong Kong have continually made comments that teaching is highly stressful after they have had their first teaching practice and actual classroom experience (Chan 2003). This would suggest that signs of burnout and the associated negative attitudes of student teachers are real, and that preventive measures to reduce burnout should be taken as early as possible.

Although burnout in the Chinese school environment has been widely studied, information about student teachers in

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✉ Jie Luo  
luojiegznu@163.com

<sup>1</sup> School of Education, Bay Area Education Policy Institute for Social Development, Guangzhou University, Guangzhou, People's Republic of China

<sup>2</sup> School of Psychology, Guizhou Normal University, Guiyang, People's Republic of China

<sup>3</sup> School of Education, Guangzhou University, Guangzhou, People's Republic of China

Western China has been far from sufficient. Previous studies have examined the factors responsible for burnout in student teachers and called for a deeper exploration of the personal, organizational, and environmental influences on burnout among this group (Chan 2003; Fives et al. 2007). Determining the related factors that influence student-teacher burnout in Western China is likely to enhance the effectiveness of teacher education, and would be very beneficial for the sustainable development of the education sector in this region. Therefore, the current study on burnout and its connection to related factors will help further the promotion and improvement of the educational internship system for student teachers while strengthening the education surrounding teaching.

## Burnout

Burnout is defined as a syndrome characterized by emotional exhaustion, cynicism or depersonalization, and reduced professional efficacy (Maslach and Jackson 1981; Salmela-Aro et al. 2011). Previous research finds that burnout is experienced extensively among professionals who provide social and human services, including teachers from various teaching areas (Sarıçam and Sakiz 2014). Studies of teacher burnout suggest that this phenomenon may arise as early as the student-teaching stage, student teachers are not immune to suffering from this condition, particularly while working as in-service teachers under chronic work stress (McLean et al. 2019). Although researchers investigate burnout among student teachers (Kokkinos and Stavropoulos 2014; Klassen and Durksen 2014), the literature remains insufficient. In addition to negatively affecting the physical and mental health of an individual, burnout affects organizational commitment, turnover intention, and job performance (Parker and Kulik 1995).

Findings indicate that the high levels of burnout among teachers might be partially because of the fact that some characteristics of individuals are unfavorable to professional development at the beginning of teacher education (Reichl et al. 2014). In addition to this, unexpected challenges during teaching practice may increase teachers' experiences of exhaustion, inadequacy, and cynicism (May et al. 2016). This indicates that efforts to help teachers prevent burnout should target not only experienced or in-service teachers, but also pre-service and student teachers.

## Professional Identity and Burnout

Professional identity is an individual's attitude and sense of devotion to a profession, which is reflected in the individual's desire to continue working in the profession and their degree of liking the profession (Mahmoudi-Gahrouei et al. 2016). Teachers' professional identities, as a determining factor in

teacher motivation, satisfaction, and commitment to work, contributes to teacher retention, and the lack of these factors thereof leads to teacher stress and burnout (Vanden 2002; Izadinia 2015). Therefore, professional identity of teachers has become an increasingly important research variable in scholarly research, and recently more attention has been devoted on the professional identity of student teachers (Deng et al. 2018). Student teachers are those who are in the process of becoming teachers, rather than already being a professional teacher (Jackson 2017). As an important reserve force of future teachers, the professional identity of a student teacher is directly related to their career choice, transition, and development. Understanding this sub-group of teachers' emerging identity may enable teacher educators to prepare a strategy for their teaching career (Fives et al. 2007).

Prior studies have found that an individual's professional identity has a significant influence on their degree of burnout in that the stronger the sense of identity an individual has for his or her career, the more likely that individual is of experiencing burnout (Hayon et al. 2002). Thus, more research is necessary into teachers' professional characteristics to ameliorate their personal and professional development, including improving their quality of teaching (Beijaard et al. 2004).

## Job Satisfaction in the Relationship between Professional Identity and Burnout

In addition to professional identity, job satisfaction may be related to burnout among student teachers. Job satisfaction has been described as one's emotional state as a result of one's job experiences (McAllister et al. 2017). Teacher job satisfaction refers primarily to the overall emotional feelings and opinions teachers have about their work and occupation, as well as about their working conditions and status (Troesch and Bauer 2017). Job satisfaction has powerful and far-reaching consequences for teachers, both in-service and pre-service, because it is related to positive work attitudes and increased job performance (Zhai et al. 2013) and also plays a critical role in personal well-being, which has been found to be closely related to happiness and satisfaction (Frye and Breaugh 2004).

Job satisfaction may play a mediating role between professional identity and burnout. Studies have shown that the professional identity of teachers has a significant impact on their job satisfaction (Moore and Hofman 1988; Gouleta and Singhb 2002). In addition, research shows that job satisfaction is an important influential factor on teacher burnout (Mechteld et al. 2003).

Job satisfaction may also moderate the relationship between professional identity and burnout. Individuals with a higher level of job satisfaction have a stronger professional

identity, and thus have more psychological resources to draw upon when coping with negative experiences such as burnout. In contrast, a low level of job satisfaction can reduce teachers' morale and enthusiasm, and prevent their professional identity from developing fully (Hoigaard et al. 2012). Therefore, compared with individuals with high levels of job satisfaction, the professional identity of individuals with low levels of job satisfaction may have a relatively limited predictive effect on burnout.

In summary, job satisfaction can be regarded as job resources which may increase professional identity and reduce the risk of one experiencing burnout (Struyven and Vanthournout 2014). It is therefore crucial to explore the role of job satisfaction in the relationship between professional identity and burnout to minimize attrition factors, reduce teacher turnover, and stimulate teacher enthusiasm (Johnson 2010). However, whether job satisfaction can mediate and/or moderate the association between professional identity and burnout in student teachers of Western China remains uncovered.

## Study Aims

The aims of this study are twofold. The first is to raise awareness on the nature and importance of the transition from student teachers to full-time teachers, and their well-being in the workplace. The second is to explore the relationship mechanism between student teacher professional identity, job satisfaction, and burnout, so as to provide suggestions for developmental research in the education of student teachers. This study will be guided by the following questions:

- (1) Are there significant associations between professional identity, job satisfaction, and burnout in student teachers in Western China?
- (2) Does job satisfaction play a mediating or moderating role between professional identity and burnout in student teachers of Western China?

The answers to these questions can be used to decrease student teacher burnout, as well as help policy makers assist student teachers in adjusting themselves and maintaining a good mental state.

## Method

### Participants

The study's participants were a convenience sample of 267 student teachers who were completing their three-month student-teaching experience in Western China.

During their teaching practice, they played the same roles and undertook the same routine work as in-service teachers. The participants were ethnically Chinese and spoke Mandarin as their first language. They completed their primary and secondary education on the Chinese mainland. The major duties of the participants in the schools included planning and preparing lessons based upon the school curriculum and their students' needs, and carrying out independent teaching in their assigned classes. In the sample, 157 participants were female and 110 were male. The age of the sample was between 20 and 25 years old (mean age = 22.70,  $SD = 1.16$ ). Every participant volunteered to participate in this study, and received no compensation for their participation.

### Procedure

This study was conducted in Western China. A detailed description of the research and the intended use of the results was provided to each student teacher participant. Participants were given a package to complete which included a questionnaire asking for their socio-demographic information, as well as questionnaires which used scales to measure their professional identity and job satisfaction, as well as the Chinese Maslach Burnout Inventory. The questionnaire data was kept confidential so as to protect the anonymity of participants. This study was approved by the Ethics Committee of University.

### Measures

**Teachers' Professional Identity Scale** The scale was originally developed by Wei (2008). The scale was an 18-item questionnaire consisting of four subscales: occupational values, role value, the sense of occupational belonging, and professional behavior inclination. The scale applies a five-point Likert scale, ranging from 1 (very strongly disagree) to 5 (very strongly agree). In this study, the Cronbach's alpha coefficient of this scale was .87.

**Job Satisfaction Scale** The scale was originally developed by Brayfield and Rothe (1951). The job satisfaction scale is a five-item questionnaire. The questionnaire was scored on a seven-point Likert scale, ranging from 1 (very strongly disagree) to 7 (very strongly agree), with the higher score suggesting more job satisfaction. In this study, the Cronbach's alpha coefficient of this scale was .85.

**Chinese Maslach Burnout Inventory** The scale was originally developed by Li (2005). The scale is a 15-item questionnaire that consists of three subscales: emotional exhaustion (five items), depersonalisation (five items), and personal

accomplishment (five items). The scale applies a seven-point Likert scale, from 1 (very strongly disagree) to 7 (very strongly agree). In this study, the Cronbach's alpha coefficient of this scale was .81.

### Statistical Analysis

The data was analyzed by using SPSS 22.0 and Mplus 8.0. First, Pearson correlations were conducted to determine associations between professional identity, job satisfaction, and burnout. Second, the structural equation model was employed to test the mediation of job satisfaction on the relationship between professional identity and burnout. Finally, latent moderate structural equations were conducted to test the moderating effects of job satisfaction on the relationship between professional identity and burnout. Consistent with the recommendation of Wen et al. (2004), the goodness of fit of the structure model was evaluated by using the following indices: the chi-square statistics ( $\chi^2$ ), the  $\chi^2/df$  ratio, the root-mean-square error of approximation (RMSEA), the standardized root-mean-square residual (SRMR), the comparative fit index (CFI), and the Tucker-Lewis index (TLI). The present study used criteria that acknowledged the potential for acceptable ( $\chi^2/df$  ratio < 3, CFI and TLI > 0.90, RMSEA < 0.08, SRMR < 0.10) and excellent fit ( $\chi^2/df$  ratio < 2, CFI and TLI > 0.95, RMSEA < 0.06, SRMR < 0.08). All statistical tests were evaluated at the  $p < .05$  significance level and constituted two-tailed tests. In addition, item parceling by item-to-construct balance was used in structural equation modeling (Little et al. 2002).

## Results

### Associations of Job Satisfaction with Professional Identity and Burnout

The results of the Pearson correlations showed that student teacher burnout was significantly negatively correlated with their scores on professional identity and job satisfaction, while professional identity was significantly positively correlated with job satisfaction (see Table 1).

**Table 1** Descriptive statistics and correlations of the variables

	<i>M</i> ± <i>SD</i>	Professional identity	Job satisfaction	Burnout
Professional identity	69.84 ± 9.63	1.00		
Job satisfaction	23.46 ± 5.52	.32**	1.00	
Burnout	54.21 ± 1.20	-.31**	-.26**	1.00

\* $p < .05$ , \*\* $p < .01$

### Mediation of Job Satisfaction on Professional Identity and Burnout

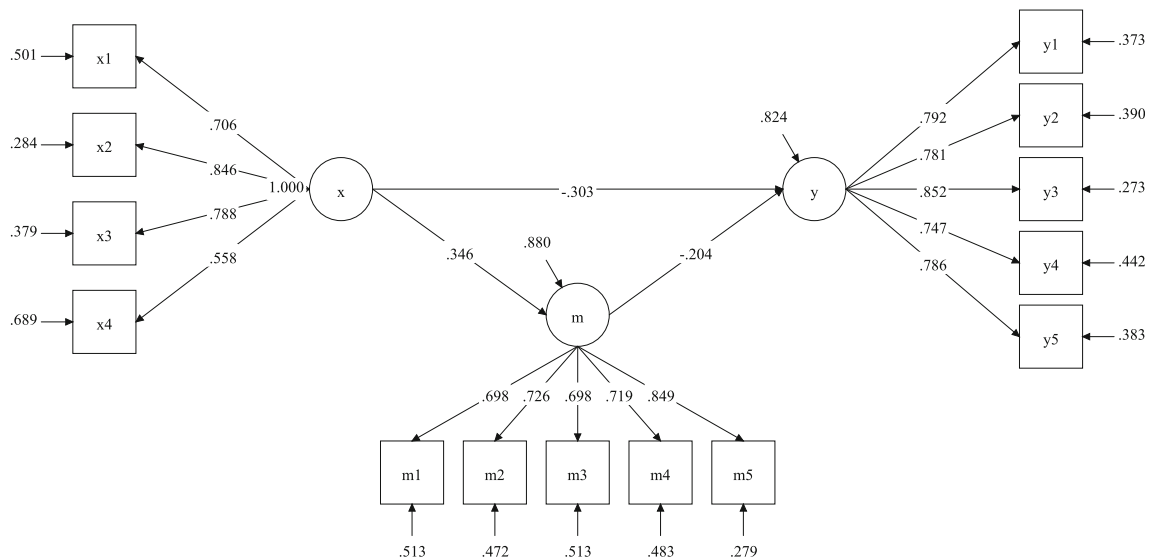
According to precious item parceling studies (e.g., Landis et al. 2000; Yang et al. 2010), the SEM procedure was employed to test the proposed structural relationships among job satisfaction, professional identity, and burnout. The results showed that the fit indices were acceptable and met the psychometric standard ( $\chi^2/df = 2.843$ , TLI = .909, CFI = .926, RMSEA = .083, SRMR = .067, respectively). In addition, both the indirect and direct pathways were significant ( $p < .01$ ). These results suggest that job satisfaction may play a partial mediating role in the relationship between professional identity and burnout. The standardized path coefficients for the partial mediation model are displayed in Fig. 1.

The bootstrap test was used to validate the mediating effects of job satisfaction on the relationship between professional identity and burnout. The results show that the indirect effect was  $-.057$  ( $SE = .024$ ),  $p = .017$ , LLCI =  $-.103$ , ULCI =  $-.010$ . These findings indicate that job satisfaction indeed play a partial mediating role in this study.

### Moderation of Job Satisfaction on Professional Identity and Burnout Relationship

Finally, latent moderate structural equations (LMS; Klein and Moosbrugger 2000; Sardeshmukh and Vandenberg 2017) were used to test the moderating effect of job satisfaction on the relationship between professional identity and burnout (see Fig. 2). An initial test of Model 1, which includes two direct path coefficients from the predictor (professional identity and job satisfaction) to the criterion (burnout) in the absence of a moderator, generated an acceptable fit to the data ( $\chi^2/df = 2.844$ , CFI = .926, TLI = .909, RMSEA = .083, SRMR = .067). A path from professional identity × job satisfaction was also added to the model, the result of which was still significant, which supported a latent moderate structural model (Model 2).

When Model 1 and Model 2 were compared (Model 1: AIC = 14,847.442, BIC = 15,008.868, aBIC = 14,866.191, LogLikelihood =  $-7378.721$ ; Model 2: AIC = 14,825.610, BIC = 14,990.623, aBIC = 14,844.776, LogLikelihood =  $-7366.805$ ), the path coefficient from professional identity to burnout ( $\beta = -.413$ ,  $SE = .065$ ,  $p < .001$ ), the path from



**Fig. 1** The partial mediation model ( $N = 267$ ). Note.  $x$  = professional identity;  $m$  = job satisfaction;  $y$  = burnout; all factor loadings are standardized

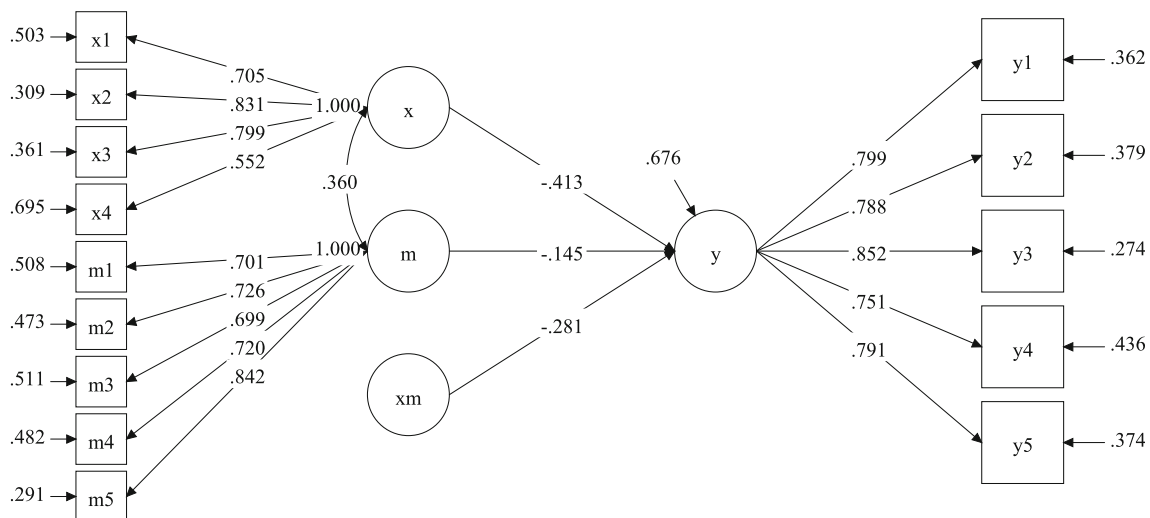
job satisfaction to burnout ( $\beta = -.145, SE = .062, p = .019$ ) and the path from professional identity  $\times$  job satisfaction to burnout ( $\beta = -.281, SE = .042, p < .001$ ) were all statistically significant. The results indicate that Model 2 was better than Model 1 (Maslowsky et al. 2015; Sardeshmukh and Vandenberg 2017), which suggests that job satisfaction significantly moderates the relationship between professional identity and burnout (see Fig. 2).

A line chart was also provided to show the interaction effect for burnout more intuitively (see Fig. 3). The line chart indicates the regression of burnout on professional identity at high (one standard deviation above the mean) and low (one standard deviation below the mean) levels of job satisfaction. There was a significant negative relationship between professional identity and burnout at a high level of job satisfaction ( $\beta = -.619, p = .006$ ). In contrast, the relationship between

professional identity and burnout was much weaker and not significant at a low level of job satisfaction ( $\beta = -.395, p = .120$ ). The predictive effect of professional identity on burnout was stronger among participants with high rather than low levels of job satisfaction.

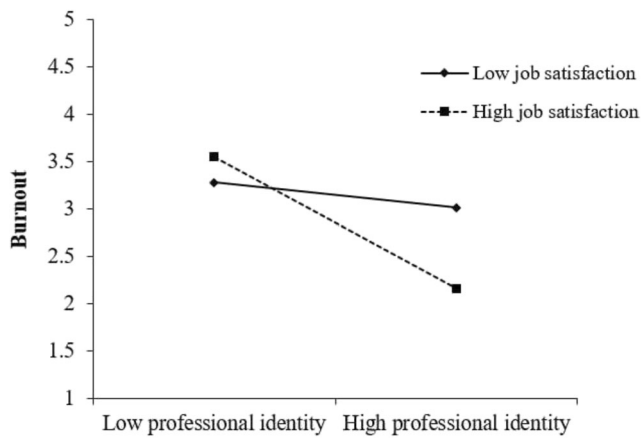
### Discussion

Early experiences in teacher education have been considered pivotal factors which can affect a student’s decisions on whether to continue with teaching (Izadinia 2015). The current study investigated a sample of student teachers and explored the relationship of their professional identity, job satisfaction, and burnout. We hope that this current study could expand and deepen the understanding of student teachers,



**Fig. 2** The moderating effects of job satisfaction on the relationship between professional identity and burnout. Note.  $x$  = professional identity;  $m$  = job satisfaction;  $xm$  = professional identity  $\times$  job satisfaction;  $y$  = burnout; all factor loadings are standardized





**Fig. 3** Interaction between professional identity and job satisfaction in predicting burnout

promote their professional development, and improve the effectiveness of teacher education. The following sections discuss the relationship of these selected variables.

### Associations between Professional Identity, Job Satisfaction, and Burnout

Consistent with previous studies (Carrinus et al. 2012; Troesch and Bauer 2017), the present study confirmed the associations between professional identity, job satisfaction, and burnout. This study found that student teacher burnout was significantly negatively correlated with professional identity and job satisfaction, while professional identity was significantly positively correlated with job satisfaction. The results supported the notion that higher levels of professional identity and job satisfaction are associated with less burnout (Malinen and Savolainen 2016; Capone and Petrillo 2018). Given its effects on both student teachers and their students, increasing professional identity and job satisfaction for student teachers may be a favorable early intervention in student teachers' vocational development.

### The Mediating and Moderating Role of Job Satisfaction

This study reinforced previous findings regarding the crucial role of job satisfaction in strategies to reduce burnout among student teachers. The structural equation model showed that the effect of professional identity on burnout was partially mediated by job satisfaction. The results demonstrate that professional identity not only has a direct influence on student teacher burnout, but it also has an indirect influence via job satisfaction. On the one hand, professional identity has a positive impact on professional success, having a strong professional identity can actually reduce the likelihood of burnout, consistent with previous study (Hayon et al. 2002; Nadelson et al. 2017). On the other hand, job satisfaction can strengthen

student teacher beliefs such as their sense of professional identity (Ilies and Judge 2004), and helps to reduce job burnout. These results provide a direction for future intervention.

Furthermore, in this study, job satisfaction also moderated the influence of professional identity on burnout. When student teachers reported a higher level of job satisfaction, some of them exhibited a high level of professional identity and significantly lower burnout scores when compared to those student teachers with a lower level of professional identity and higher burnout scores. However, the groups with low levels of job satisfaction exhibited fewer differences in burnout likelihood when they were confronted with low or high levels of professional identity. The results demonstrate that the effect of professional identity is more obvious in the student teachers with higher job satisfaction scores than those with lower job satisfaction. The job demand-resource model proposes that job resources, such as job involvement, job satisfaction, and commitment, result in positive outcomes and reduce negative outcomes (Lambert et al. 2018; Pogere et al. 2019). The results of this study support the job demand-resource model, and further specifically point out that increasing job satisfaction strengthens the positive effects of stronger professional identity on burnout.

### Practical Implications

The results of this study are meaningful when looking at teacher training and recruitment as student teachers are an important recruitment pool for teacher education, not only in Western China, but also in other regions and countries, with significant resources being dedicated in their training. The implications of this study are as follows:

Firstly, professional identity acts as an important underlying factor to student teacher development. It also stands at the core of the teaching profession as a whole, which reflects the convergent demands of people and society (Mahmoudi-Gahrouei et al. 2016; Deng et al. 2018). From a sociocultural perspective, professional identity affects basic work attitudes, cognition, and feelings about the career of an individual (Wang and Du 2014). Student teachers do not yet regard themselves as professionals, but they nevertheless have a certain degree of professional identity (Ruohotie-Lyhty and Moate 2016). It is reported that the greatest development of professional identity occurs in the initial phase of a person's professional practice. For student teachers, the development of professional identity already begins during their formal education in colleges and universities (Sutherland and Markauskaite 2012). Student teachers are in the transition from higher education to employment, and studies show that this transition has been especially problematic for new teachers, resulting in high levels of burnout and turnover for this group (Hultell and Gustavsson 2011). A transition characterized by positive

experiences can lead to increased job satisfaction and organizational commitment, whereas a negative transition period might result in turnover and burnout. Studies have found that, for many people, this period was decisive when it came to the development of work-related attitudes and behaviors, as well as being especially critical in the likelihood of burnout (Cherniss 1980). It can be seen that a robust pre-service education was helpful in the development of new teachers' professional identities (Losano et al. 2018).

Secondly, job satisfaction exerts both mediating and moderating effects on the relationship between professional identity and burnout, and we should therefore enhance teacher job satisfaction in order to reduce burnout. As an important factor influencing teachers' professional development, job satisfaction has become a significant intervention strategy in education psychology and occupational psychology (Catherine and Steve 2000). Practice teaching provides student teachers with important opportunities to develop their knowledge and skills in authentic classroom settings, amidst the difficulties posed by the initial teaching experiences. Previous studies have showed that some newly-graduated students experience "reality shock" or "unmet expectations" when they enter employment and realized that the reality did not match their expectations (Lee and Ashforth 1996). Consequently, induction and mentoring programs for new teachers should engage in making the transition smoother, reducing negative effects such as negative turnover and stress, as well as increasing the positive effects where possible, such as in job satisfaction (Kelley 2004).

Finally, supervision appears to be an important method to provide student teachers with support in their work, which will also support their development. Supervision is considered a common part of professional growth in workers, which maximizes an individual's potential, improves their work effectiveness, and decreases an individual's risk of burnout (Rahabav 2016). In practice, supervision refers to continuously supporting growth, improving one's professional level of work, and lessening the chances of student teachers' to make mistakes. Supervision also includes enhancing professional care of a student teacher's current job, clarifying their doubts, and creating healthy and functional relationships between schools and teachers (Potměšilová 2014). Therefore, supervision is an important way to guide student teachers, to enable them to reach as great a performance level as possible.

## Conclusions

This study provides a better understanding of the ways that job satisfaction and professional identity are associated with burnout among student teachers in the Western Chinese region. Job satisfaction both mediated and moderated the influence of professional identity on burnout. These findings imply that

job satisfaction is a critical indicator of professional identity and burnout, which can therefore serve as a basic intervention strategy to promote professional identity and decrease burnout among Western Chinese student teachers.

## Limitations

The strengths of the present study lie firstly in the methodology used for data analysis. In addition, validated local instruments enhance the accuracy of the findings.

Despite these strengths, however, the study also has some limitations. Firstly, considering the distinctive local socio-cultural features, our findings may not be simply generalized to other regions of China nor to other countries. Secondly, as the data was collected through self-report questionnaires, it depends largely on subjective observation, which may bring the accuracy of the data into question. Finally, other variables, such as the socioeconomic background, recruitment criteria, and teaching practice, may also affect professional identity and burnout. This should be considered in future studies.

## Compliance with Ethical Standards

**Declaration of Conflicting Interests** The authors declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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