A Review of Research on Elementary and Middle School Teacher Burnout

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Abstract: Burnout has adverse effects on individual teachers, organizations, and the education profession. In the past two decades, scholars at home and abroad have conducted extensive research around the definition, measurement tools, influencing factors, and interventions of teacher burnout. Future research needs to be based on the inheritance of existing results, and should focus on the formation mechanism of burnout, countermeasures, and the effectiveness of interventions for primary and secondary school teachers. At the same time, international comparative studies need to be strengthened to gain a more comprehensive perspective. Burnout is a widespread health problem worldwide^[1-2]. Research shows that burnout is particularly common in the helping professions^[3] Burnout is particularly common in helping professions. As a specific type of helping profession, burnout is more prominent among teachers^[4] The problem of burnout is even more pronounced in teachers as a specialized helping profession. Individual teachers' physical and mental health and job satisfaction can be negatively affected by burnout. Research has shown that teachers in a state of burnout often face high levels of stress, emotional instability, and physical fatigue. These problems not only take a toll on the individual teacher, but may also affect interactions with students and teaching effectiveness. Burnout may also negatively impact the quality of classroom instruction and student academic achievement by affecting teachers' teaching styles, professional commitment, and motivation levels^[5]. In the past two decades, scholars at home and abroad have conducted extensive and in-depth research on the issue of teacher burnout in primary and secondary schools. Based on the literature on burnout at home and abroad, this paper summarizes the current research on teacher burnout in primary and secondary schools and speculates on the future development trend, with a view to providing reference for further research in the field of teacher burnout in primary and secondary schools.

1. Data sources and research methodology

The Chinese literature of this study was all obtained from China Knowledge Network (CNKI), and the search period was from 2005 to 2023. A total of 287 academic papers, including journal articles, dissertations, and conference papers, were searched with the theme of "burnout of primary and secondary school teachers"; 188 academic papers were searched with the title of "burnout of primary and secondary school teachers". A total of 287 academic papers were searched. After further

screening of the above 475 papers and deleting the articles on burnout of early childhood teachers, college teachers and teachers of educational training institutions, articles with high repetition rate, and articles not related to burnout of primary and secondary school teachers, 96 papers were found, among which 31 papers were from Chinese core journals and the latest edition of CSSCI journals.

The foreign language literature for this study was obtained from the foreign language databases Ebsco and Web of Science, with "Primary and Secondary School Teathers" and "Burnout" as the subject terms. The subject terms "Primary and Secondary School Teachers" and "Burnout" were used as the search terms, and the time period of the search was also from 2005-2023, and 49 foreign literature related to the subject were finally found.

This paper adopts the literature research method to sort out, summarize and distill the above literature.

2. Status of research

In the past two decades, scholars at home and abroad have studied the concept, measurement, influencing factors, and coping measures of burnout in primary and secondary school teachers based on the established results of burnout, and have achieved important results.

2.1 Defining the concept of teacher burnout

Burnout is called "job burnout", "professional exhaustion", "work exhaustion", etc. It was first proposed by American psychologist Freudenberger, who conducted a systematic and comprehensive study on burnout in 1974.^[6] It was first proposed by American psychologist Freudenberger, who conducted a systematic and comprehensive study on burnout in 1974, and believed that burnout is a series of negative symptoms displayed by individuals who are unable to cope effectively with occupational stress in the workplace over a long period of time.Maslach and Jackson put forward a three-dimensional model of burnout in 1981, and burnout was divided into three dimensions: Emotional Exhaustion (EE), Depersonalization (DP) and Reduced Personal Accomplishment (RPA). Emotional Exhaustion is a state of extreme emotional exhaustion due to the overexertion of physical and mental resources. Depersonalization, on the other hand, manifests itself in an individual's apathy, negativity, rejection, and defiance towards work. Low achievement, on the other hand, refers to the emotions of helplessness and low self-esteem as the individual negatively evaluates himself or herself and believes that he or she is unable to effectively perform his or her job, and this three-dimensional model has been widely used by scholars at home and abroad.

From the viewpoint of foreign research theories and experiences, teacher burnout refers to "Teacher burnout refers to some kind of extreme reflection when teachers are unable to successfully cope with work pressure, and it is the exhaustion of mood, mentality and behavior of primary and secondary school teachers under the feeling of prolonged pressure, and the typical symptoms are low job satisfaction, loss of enthusiasm and interest in work, as well as emotional detachment and indifference. "^[7]. Domestic academics seldom directly define the connotation of teacher burnout, mainly drawing on the concepts of foreign scholars. But there are also some scholars who have described teacher burnout in detail according to their own research perspectives. Definition in Liu Weiliang's "Teachers' Mental Health": "Burnout refers to the state of physical and mental exhaustion resulting from an individual's inability to cope with the excessive external demands on personal abilities and resources, and teacher burnout refers to a reaction in which a teacher is unable to cope with work stresses successfully"^[8]. In addition, Yang Xiuyu and Yang Xiumei analyzed that "burnout is a state of physical and mental exhaustion experienced by individuals who are unable to effectively alleviate work stress or properly cope with work-related setbacks".^[9].

A uniform definition of burnout does not yet exist. However, it generally covers two important

aspects: firstly, teacher burnout is the adverse reaction of teachers to work pressure; secondly, burnout leads to a series of negative physiological and psychological reactions in teachers. Therefore, teacher burnout can be regarded as a reflection of teachers' emotions and behaviors when they are under work pressure and are in various conflicts for a long period of time.

2.2 Measurement of teacher burnout

To effectively measure burnout, Maslach and Jackson developed the Maslach Burnout Inventory (MBI) in 1976, which is based on a three-dimensional model of burnout. The scale was primarily used to measure the level of burnout among service industry personnel and was widely used in the work environment. Subsequently, based on the specific needs of teachers, Maslach and Jackson improved and revised the MBI in 1986, designing a test scale specifically designed to assess teacher burnout called the MBI-Educator Survey (MBI-ES). The MBI-ES was designed with the same purpose as the MBI to provide a quantitative measure of burnout by assessing its three dimensions to provide a quantitative measurement tool. However, the questions on the MBI-ES have been modified to focus more on teachers' teaching and learning as well as their unique emotional and affective experiences. The Cronbach's alpha coefficients for the three dimensions were 0.90, 0.76, and 0.76, respectively, with good cross-cultural reliability and validity, and it is considered to be the most widely used research instrument in the field of teacher burnout research.

On the basis of the existing scale research in foreign countries, scholars in China have made some adjustments and adaptations according to the localized national conditions. For example, Wang Fang and Xu Yan When studying the relationship between exhaustion and social support, "the MBI was revised for the new factor, i.e., lack of professional knowledge, and seven questions related to this factor were added, thus forming the 'Scale of Professional Exhaustion of Elementary and Middle School Teachers'"^[10]. Wu Xinchun et al further revised the MBI-ES Teacher Burnout Scale suitable for China's national conditions^[11]. In addition, some other scales and questionnaires have been used to measure teacher burnout in China. For example, Wang Guoxiang et al developed the Teacher Burnout Scale^[12], Xu Fuming developed the Teacher Burnout Questionnaire^[13], Li Yongxin developed scale CMBI, and these instruments have also been widely used in the study of teacher burnout in China^[14]. The use of these scales and questionnaires is of great significance in promoting the creation of a healthy work environment for teachers and the enhancement of individual mental health.

2.3 Factors affecting teacher burnout

Teacher burnout in primary and secondary schools is affected by various factors. This study analyzes the influencing factors of teacher burnout from three aspects: individual factors, occupational factors and organizational management factors.

First, in terms of individual factors, such as teachers' personality traits, self-efficacy, job satisfaction, and psychological capital, studies have concluded that they are related to teacher burnout. Xing Jinping found that teacher burnout is significantly affected by their educational knowledge and competence and interpersonal relationships^[15], and that educators may feel fatigued and de-motivated when coping with the stress of teaching and interacting with students, parents, and colleagues over a long period of time.Kokkinos C. M. et al found that teachers' personality traits and work stressors were related to the dimensions of burnout^[16].Skaalvikem et al. 's study verified the relationship between teachers' self-efficacy and job satisfaction were negatively related to both dimensions of burnout, emotional exhaustion and depersonalization. The higher teachers' satisfaction with their competence and work, the less they may suffer from emotional exhaustion and dissolution of

professional identity. According to Liu et al.^[18] study it was concluded that the higher the level of teachers' psychological capital, the less the impact of their perceived burnout on their mental health status. Similarly, Xia Cai study also found that psychological capital not only directly reduces teachers' burnout, but also reduces the level of burnout by increasing teachers' job satisfaction^[19]. In addition, this process is influenced by external social support. Zheng Chuchu et al.^[20] 's findings showed that there was a moderate negative correlation between teachers' emotional intelligence and teacher burnout, and as teachers' level of emotional intelligence increased, they were less likely to feel the emotion of burnout.Huko et al.^[21] found through their study that teachers who hold irrational beliefs when facing professional challenges or difficulties tend to be more prone to burnout symptoms.

Secondly, in terms of occupational factors, the job requirements of teachers are unique compared to other professions. They not only need to impart knowledge, but also need to focus on developing students' character and literacy. Teachers' teaching objects are full of vitality and differences, which makes their work more challenging and complex. In addition, compared with traditional professions, teachers are engaged in teaching activities that are long-lasting and long-term, possessing obvious differences. Therefore, more and more scholars have begun to study the impact of work resources on teacher burnout. According to Liu^[22] 's research study, high occupational stress and low teaching efficacy accelerate teachers' emotional exhaustion and aggravate their likelihood of developing dehumanizing symptoms. This means that teachers may feel extreme emotional and energetic exhaustion in the face of high-pressure work and lack of teaching fulfillment, leading them to develop apathetic and detached attitudes toward their students. In addition, Li Peng et al.^[23] 's study found that job stress has a positive effect on burnout, and also found that emotional labor and job satisfaction play the role of chain mediators in this process. This means that job stress can indirectly lead to burnout by affecting teachers' emotional labor and job satisfaction. The teaching profession is unique in that they not only have to cope with various occupational stresses and challenges, but also with emotional exhaustion. High levels of occupational stress and lack of teaching efficacy can accelerate teachers' emotional exhaustion, while job stress also influences the emergence of burnout through the mediation of emotional labor and job satisfaction.

Finally, in terms of organizational management factors. Social support, organizational equity, organizational culture, and administrativeization became the main research variables. Wang Fang and Xu Yan^[24] pointed out that social support significantly affects burnout, on the one hand, lack of leadership support accelerates teachers' burnout, on the other hand, students' and leaders' support as well as emotional type of support can effectively alleviate teachers' burnout level. Jane Tian et al.^[25] The results of the study showed that high levels of transformational leadership can significantly reduce the level of burnout. The study suggests that as the ability of transformational leadership increases, the level of employee burnout decreases accordingly. In addition to the necessary social support, organizational culture in primary and secondary schools also affects teacher burnout. In particular, participatory organizational cultures encourage teachers to actively participate in decisionmaking and shared responsibilities, which increases teacher satisfaction and reduces burnout levels. In contrast, bureaucratic organizational cultures tend to lead to frequent teacher burnout. In overly administrative primary and secondary schools, teachers' opportunities to participate in decisionmaking are inhibited, which tends to lead to higher levels of burnout^[26] Aloeam et al.^[27] found that student misbehavior had varying degrees of impact on the three dimensions of teacher burnout. Of these, the effect on teachers' emotional exhaustion was the most significant. The presence of misbehavior can cause teachers to feel emotionally depleted and exhausted. This emotional exhaustion may further trigger other burnout issues such as depersonalization. Personal accomplishment is also affected by inappropriate behaviors; problematic student behaviors may cause teachers to question their own teaching abilities and their students' academic performance, thus reducing their personal accomplishment.

2.4 Coping strategies for teacher burnout

Currently, domestic and international research focuses on how to effectively intervene in the problem of burnout as well as improve teachers' job satisfaction.

On the one hand, providing teachers with external support from organizations or society is one way to alleviate burnout. According to Guo Si and Zhong Jianan^[28] 's viewpoints, strengthening social support and establishing a favorable atmosphere of public trust are important initiatives to provide teachers with career support. Zhao Chunyang^[29] proposed a series of strategies to alleviate teacher burnout, including enhancing the establishment of a social support network, building school culture, and guiding teachers to have a correct understanding of burnout. In addition, Sun Hui[30] suggested that reducing teachers' professional stress mainly relies on the support of schools, which should take various measures to alleviate teachers' work pressure. Shi Zhongying^[31] argued that recruiting people who are truly passionate about teaching to join the teaching force can increase the mobility of the teaching force and thus alleviate burnout.

On the other hand, professional development and intervention programs for teachers can be conducted in order to improve their ability to cope with burnout. According to Sun Jin et al.^[32] 's findings, special education teachers may be able to help prevent or alleviate their burnout condition if they can increase the application of positive thoughts, improve their level of self-acceptance, and reduce perceived stress. Teachers themselves need to be firm in their educational ideals, have the mental expectation and capacity to accept setbacks, and accept social evaluation with a positive attitude. At the same time, teachers need to correct their perception of the value of teaching-related administrative matters and meetings, establish closer ties with the outside world in a proactive manner, communicate with an open mind and participate enthusiastically in school management, and seek advice and suggestions from former teachers. In addition, teachers need to be receptive to sound advice and willing to accept help in order to reduce their psychological burden^[33].

Although a number of interventions have been proposed, however, systematic interventions that are applicable and effective for all educators have not been generalized and implemented to date. Therefore, future research needs to delve further in order to find more effective ways to address teacher burnout. In addition, school administrators and policymakers should recognize the negative impact of teacher burnout on education and take proactive measures to improve teacher job satisfaction to ensure the stability of the teaching population and the improvement of education quality.

3. Trends in teacher burnout

Teacher burnout is a growing problem, so research on the issue has a wide range of applications. With the continuous development of research, the trend is gradually developing in the direction of more application. Summarizing the previous relevant research, the following trends can be summarized.

Firstly, the current research on measures to cope with teacher burnout in primary and secondary schools is not systematic and comprehensive enough; most of the questionnaires used in the existing studies are horizontal, and there are almost no longitudinal or cross-sectional studies, and most of the research methods use correlation analysis methods and descriptive analysis. Therefore, future research on teacher burnout can be explored in a longitudinal or cross-cutting direction, tracking changes in the same group of teachers in order to reveal the causes and evolution of burnout.

Second, because most of the current evidence-based research on teacher burnout is correlational, the validity of the evidence is weak. Although there have been some experimental intervention studies dedicated to improving teacher burnout, the overall number is insufficient, and there are small sample sizes and short cycles, so the effectiveness of the program remains to be further verified. Therefore,

future research can expand evidence-based intervention studies related to teacher burnout and emphasize the evaluation of the effectiveness of interventions. By conducting empirical studies on interventions, effective paths and methods to alleviate burnout can be revealed. At the same time, evaluating existing interventions can help determine their actual effects and feasibility, and provide teachers with targeted burnout intervention programs.

Thirdly, with the development of society, some new situations and factors have emerged, which require researchers to keep abreast of the times and expand their research in response to social development, educational changes and the needs of young people. Especially in the current era of education quality improvement. Therefore, future research should be directed toward the improvement of education quality and expand the research on the factors related to teacher burnout and its mechanism of action on education quality. We can explore the relationship between teacher burnout and teachers' self-efficacy, job satisfaction, job commitment, student development, and classroom teaching quality in the context of teacher burnout-related factors, and then explain the mechanisms through which these factors contribute to the quality of education at all levels and in all types of education.

Fourth, although foreign research on burnout and job satisfaction started earlier, domestic scholars have developed models and scales applicable to teachers in China on the basis of the research results of their predecessors. However, environmental factors have a certain impact on their applicability. Therefore, future research needs to explore the actual situation of the domestic education industry more deeply in order to construct a standard model applicable to the study of teacher burnout in China. At the same time, it is necessary to strengthen the research on issues related to burnout in China's vocational teacher groups, enrich local cases, and refine theories and models that are in line with the domestic context. In addition, relevant studies should also compare the local cases with other countries and regions to promote cross-cultural exchanges in teacher burnout research. The development of these trends will contribute to the in-depth understanding and effective alleviation of teacher burnout and improve teachers' job satisfaction.

References

[1] Lheureux F, Truchot D, Borteyrou X. Suicidal tendency, physical health problems and addictive behaviors among general practitioners: their relationship with burnout[J]. Work & Stress An International Journal of Work Health & Organisations, 2016, 30(2):173-192.

[2] Maslach C, Leiter M P .Understanding the burnout experience: recent research and its implications for psychiatry [J].World Psychiatry, 2016, 15(2).

[3] Maslach C, Schaufeli W B, Leiter M P. Job burnout[J]. Annual Review of Psychology, 2001, 52:397.

[4] A Głebocka, Lisowska E. Professional burnout and stress among Polish physicians explained by the Hobfoll resources theory. [J]. Journal of Physiology & amp; Pharmacology An Official Journal of the Polish Physiological Society, 2007, 58 suppl 5(Pt 1):243-252.

[5] Aloe M A, Amo C L, Shanahan E M. Classroom Management Self-Efficacy and Burnout: a Multivariate Meta-analysis [J]. Educational Psychology Review, 2014, 26(1):101-126.

[6] Feng J. A review of western teacher burnout research[J]. Chinese Culture Forum, 2009, (S1):143-145.

[7] Byrne B M. The Maslach Burnout Inventory: testing for factorial validity and invariance across elementary, intermediate and secondary teachers[J]. Journal of Occupational and Organizational Psychology, 2011, 66(3):197-212. [8] Liu, Wei-liang. Teachers' mental health [M]. Beijing: Intellectual Property Publishing House, 1999.

[9] YANG Xiuyu, YANG Xiumei. Analysis of Teacher Burnout[J]. Research on Foreign Education, 2002, (02): 56-60.

[10] Wang F, Xu Y. Career depletion of primary and secondary school teachers and its relationship with social support [J]. Psychological Journal, 2004, (05): 568-574.

[11] WU Xinchun, QI Yajing, YU Rongrong, et al. Further revision of the burnout questionnaire for primary and secondary school teachers[J]. Chinese Journal of Clinical Psychology, 2016, 24(5):5.

[12] WANG Guoxiang, LIU Changjiang, WU Xinchun. Revision of the Teacher Burnout Scale[J]. Psychological Development and Education, 2003, (03): 82-86.

[13] XU Fu-ming, JI Feng, ZHU Qiuling. Development and reliability test of burnout questionnaire for primary and

secondary school teachers[J]. Chinese Journal of Clinical Psychology, 2004, 12(1):3.

[14] MENG Hui, LIANG Qiaofei, LI Yongxin et al. Teachers' job satisfaction and job performance: The mediating effect of burnout[J]. Psychological Development and Education, 2009, 25(01):103-107.

[15] Xing Jinping. Behind Teacher Burnout: A Survey and Research on Factors Related to Teacher Burnout[J]. Journal of Henan University (Social Science Edition), 2006.

[16] M C K. Job stressors, personality and burnout in primary school teachers. [J]. The British journal of educational psychology, 2007, 77 (Pt 1): 229-43.

[17] Einar, M, Skaalvik, et al. Teacher self-efficacy and teacher burnout: a study of relations[J]. Teaching & Teacher Education, 2010.

[18] LIU Jianping, FU Dan. The relationship between burnout and mental health among college teachers: The mediating and moderating role of psychological capital[J]. Psychological and Behavioral Research, 2013, 11(6):765-769.

[19] Xia Cai. Research on the impact of psychological capital on teacher burnout - based on the research of 528 inservice teachers[J]. Jiangxi Social Science, 2017, 37 (07): 250-256.

[20] Zheng Chuchu, Guo Liping. A meta-analysis of research on the relationship between teachers' emotional intelligence and teacher burnout at home and abroad since the twenty-first century [J]. Teacher Education Research, 2018, 30 (04):114-121.

[21] Huk O, Terjesen M D, Cherkasova L. Predicting teacher burnout as a function of school characteristics and irrational beliefs: HUK et al[J]. Psychology in the Schools, 2019, 56(1).

[22] LIU Xiaoming. The relationship between occupational stress, teaching efficacy and burnout among primary and secondary school teachers[J]. Psychological Development and Education, 2004, 20(2):6.

[23] LI Peng, ZHANG Zhichao, YANG Yang et al. The effects of job stress on burnout among primary and secondary school teachers: the chain-mediated effects of emotional labor and job satisfaction[J]. Psychological and Behavioral Research, 2022, 20 (03): 412-418.

[24] WANG Fang, XU Yan. Career depletion status of primary and secondary school teachers and its relationship with social support[J]. Journal of Psychology, 2004, 36(5):568-574.

[25] TIAN Jin, MAO Yaqing, XIONG Huaxia. The effects of transformational leadership on teacher burnout: The chainmediated effects of social-emotional competence and well-being [J]. Psychological Development and Education, 2021, 37 (05): 743-751.

[26] Liu K. Analysis of Organizational Factors and Countermeasure Research on University Teachers' Burnout[J]. Education and Career, 2013, (27): 78-79.

[27] Aloe M A, Shisler M S, Norris D B, et al. A multivariate meta-analysis of student misbehavior and teacher burnout [J]. Educational Research Review, 2014, 12 30-44.

[28] GUO Si, JONG Jian-An. A review of intervention studies on burnout[J]. Psychological Science, 2004, (04): 931-933.

[29] Zhao Chunyang. Research on the Factors Related to Teacher Burnout [D]. Northeast Normal University, 2005.

[30] Sun Hui. Research on the Negative Effects of Teachers' Professional Stress[J]. Educational Exploration, 2004, (10): 95-97.

[31] Shi C. Y. A philosophical explanation of teacher burnout [J]. Chinese Journal of Education, 2020, (01): 95-98.

[32] Sun J, Wang Y, Wan Q, et al. Mindfulness and Special Education Teachers' Burnout: The Serial Multiple Mediation Effects of Self-Acceptance and Perceived Stress [J]. Social Behavior and Personality: an international journal, 2019, 47. [33] Zou Peiwei. Attribution and guidance of burnout among young teachers in colleges and universities--an analysis based on the "mixed four-factor model"[J]. China Youth Studies, 2023, (01): 105-112.