Journal of Education and e-Learning Research
Vol. 11, No. 2, 404-412, 2024
ISSN(E) 2410-9991 / ISSN(P) 2518-0169
DOI: 10.20448/jeelr.v11i2.5641

Workload doesn't mean exhaustion: Antecedents of teacher burnout

Vu Dung[1]
Vu Thu Trang[2]✉
Nguyen Thi Mai Lan[3]

(✉ Corresponding Author)

[1]*Institute of Psychology, Hanoi, Vietnam.*
Email: vudungtamly@gmail.com
[2]*Faculty of Psychology and Education, Hanoi National University of Education, Hanoi, Vietnam.*
Email: trangvt@hnue.edu.vn
[3]*Graduate Academy of Social Sciences, Hanoi, Vietnam.*
Email: mailantamly@gmail.com

Abstract

Workload has consistently been found to be a predictor of burnout in teachers. However, while academia considers workload a psychological concept, the public tends to simplify workload as the number of tasks assigned. This study seeks to provide further evidence of the psychological nature of workload by examining if workload understood in terms of quantity of work had any effect on teacher burnout and whether this relationship was moderated by psychological processes such as self-efficacy and mediated by stress. 117 primary and high school teachers holding at least two roles at school participated in the study. Teacher burnout was measured using MBI-ES, self-efficacy was measured by OSTES and stress and workload were measured by single-item questions. Results showed that workload (i.e., the number of roles assigned) did not have a main effect on burnout. Perceived stress and self-efficacy had direct effects on teacher burnout: stress increased burnout while self-efficacy reduced burnout. Self-efficacy had a significant moderation effect on workload-burnout interaction. Workload increased burnout only in teachers with low self-efficacy while stress did not moderate the workload-burnout relationship. These findings support the psychological nature of the relationship between workload and burnout among teachers. They also point out the importance of enhancing teacher stress management and self-efficacy in protecting them from burnout.

Keywords: Burnout, Moderation, Self-efficacy, Stress, Teacher, Workload.

Citation | Dung, V., Trang, V. T., & Lan, N. T. M. (2024). Workload doesn't mean exhaustion: Antecedents of teacher burnout. *Journal of Education and E-Learning Research, 11*(2), 404–412. 10.20448/jeelr.v11i2.5641
History:
Received: 22 January 2024
Revised: 28 March 2024
Accepted: 12 April 2024
Published: 14 May 2024

Publisher: Asian Online Journal Publishing Group

Funding: This study received no specific financial support.
Institutional Review Board Statement: The Ethical Committee of the Vietnam Association of Psychology, Vietnam has granted approval for this study on 23 October 2023 (Ref. No. 201/DD-TLHVN).
Transparency: The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.
Competing Interests: The authors declare that they have no competing interests.
Authors' Contributions: All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

Contents

Contribution of this paper to the literature
This study tests the physical and mental aspects of workload and burnout side-by-side to highlight the importance of the mental aspect of workload. Moreover, our study contributes to the literature by pointing out the interaction between psychological mechanisms (i.e., stress and self-efficacy) and workload as antecedents of burnout.

1. Introduction

Burnout is a state of mental and physical exhaustion characterized by a negative attitude towards oneself or others (Maslach, Schaufeli, & Leiter, 2001). Burnout is more than a state of extreme and prolonged stress in which a person feels exhausted and lacks the energy to continue work. It also reflects efforts to detach oneself from tiring social relationships (Maslach & Leiter, 2016).Therefore, burnout includes psychological and relationship issues whereas high stress includes physical and psychological problems. Maslach's model points out three components of burnout: emotional exhaustion, a lack of personal achievement and depersonalization (Maslach & Jackson, 1981). Emotional exhaustion refers to the psychological state of being drained and a lack of energy. A lack of personal achievement refers to the psychological judgment of being not good enough, unable to meet work requirements. A lack of personal achievement is a psychological symptom because it comes from subjective assessment and might lack objective evidence. Depersonalization is a relationship symptom that refers to the cynical feeling of not wanting to be involved with others or caring about others. Taken together, these components show that when in a state of burnout, the person feels tired, stuck, detached and they try to stay away from people or relationships related to their source of burnout in an effort to recover from their mental state.

Burnout poses real problems for one's performance, mental health and job satisfaction (Fogarty, Singh, Rhoads, & Moore, 2000; Yang & Hayes, 2020). The phenomenon was first examined in people in the service industry because of its relationship-based nature (Maslach & Leiter, 2016). Until now, the majority of burnout research has been based on participants from the education and healthcare sectors (Lubbadeh, 2020; McCormick & Barnett, 2011). Burnout among teachers is a serious issue because of its popularity. García-Carmona, Marín, and Aguayo (2019) summarized that approximately half of secondary school teachers experienced moderate burnout in multiple studies. Burnout among teachers impacts both teachers and students. Burnout teachers are more likely to take leave (Burke & Greenglass, 1995) because they suffer from physical illness such as headache, cardiovascular diseases and depression (Guglielmi & Tatrow, 1998). Burnout also makes teachers feel less confident and capable in their job (Skaalvik & Skaalvik, 2010) indirectly reducing their job performance. Ultimately, burnout can lead to teachers leaving their jobs (Goddard & Goddard, 2006), creating a burden for the school management system. The quality of the interaction between a teacher and student is negatively impacted by burnout because these teachers are inclined to punish their students, give them orders and reduce their freedom in the classroom (Shen et al., 2015). Burnout also has a negative correlation with students' academic performance and motivation (Madigan & Kim, 2021).

Previous studies have consistently found that workload is a predictor of teacher burnout. High demands for the quality and quantity of work increase burnout among teachers (Sabagh, Hall, & Saroyan, 2018). Time pressure increases emotional exhaustion (Skaalvik & Skaalvik, 2020). In short, a high workload affects both the physical and mental state of teachers leading to burnout.

1.1. Theories Explaining the Effect of Workload on Burnout

Underlying the impact of workload on burnout is the "intensification" thesis (Apple, 1988). Increasing social demands on the education system require teachers to take on more roles, both teaching and non-teaching. A good teacher is an efficient employee who can deal with the expanded job scope, increased pressure and reduced leisure time. When teachers cannot handle the workload, they feel less effective as they are taught to believe that other teachers can still manage the workload assigned.

An intensified workload can be understood straightforwardly as the number of tasks assigned. However, the number of tasks represents the "physical" aspect of workload which might fail to explain why some people can multitask effectively while others feel overwhelmed with just one task given. Human factor psychology is more interested in "mental" workload, the perceived fit between job demands and one's capability to meet the demands (Kantowitz, 1987). When job demands are beyond one's ability, there is a low fit and a person experiences overload which can easily be understood as a stressful experience. As a result, when measuring workload, not only people have to report their job demands and the effort required but they also have to report the frustration experienced during the process of coping with the workload (MacDonald, 2003).

The psychological nature of workload also means that the perception of workload and its consequences can be influenced by psychological mechanisms that support stress coping. Research on burnout has found that stress-prevention mechanisms such as self-efficacy, stress coping and school support systems are by themselves protective factors against teacher burnout while workload, stress and students' problems are the causes of burnout (Oliveira, Roberto, Veiga-Simão, & Marques-Pinto, 2021; Park & Shin, 2020).

However, we can also interpret these stress-prevention systems as mediators in the relationship between workload and burnout considering our understanding of the nature of workload and its relationship to stress. Several studies have started to find evidence in this direction. Fadare et al. (2022) and Xanthopoulou et al. (2007) found that job resources (i.e., how much control, time and social support one has in their job) moderate the relationship between job demands and burnout implying that pharmacists and healthcare workers might not experience burnout despite their job demands if they have enough resources to cope with their job. Similarly, Portoghese, Galletta, Coppola, Finco, and Campagna (2014) reported that job control moderates the relationship between workload and burnout. Workload increases emotional exhaustion and depersonalization when job control is low. Diehl et al. (2021) examined the moderation role of team support, workplace commitment and recognition from supervisors on the workload – burnout relationship to find that people with good social support from their team and supervisor as well as high work commitment would experience less burnout even when their workload is high. Görgens-Ekermans and Brand (2012) investigated emotional intelligence as a basis for adaptive

coping strategies and found that emotional intelligence moderated the stress-burnout relationship. Eikenhout et al. (2022) reported that self-efficacy in coping with stress weakened the effect of workload on burnout. These studies pointed out mechanisms to buffer against the negative effect of workload on burnout. High workloads lead to burnout but this relationship is weakened when one has strong social and personal resources.

1.2. Current Study

Although there is general agreement that workload is a psychological construct, this conceptualization of workload has not been delivered well to the public as leaders have a tendency to look at workload as the quantity of work. It is important to test the physical and mental aspects of workload and burnout side-by-side to highlight the importance of the mental aspect of workload. Moreover, previous studies tend to consider psychological mechanisms such as stress and self-efficacy with workload not in relation to each other. This study contributes to the literature by pointing out the interaction between these antecedents of burnout.

This study seeks to examine the effect of both physical and mental aspects of workload on burnout in teachers. We proposed two research questions:

- Can physical workload, i.e., the number of tasks and roles predict burnout?
- What is the effect of psychological mechanisms like stress and self-efficacy on burnout?

We started by testing if the simplified translation of workload as the number of tasks and roles could predict burnout. We went on to test if the relationship between workload and burnout is influenced by psychological mechanisms such as perceived stress and self-efficacy (see Figure 1). We predict that workload will increase stress which in turn will increase burnout. This prediction is based on the mental conceptualization of workload (Kantowitz, 1987). Self-efficacy is predicted to moderate the relationship between workload and burnout. Our hypotheses are:

H_1: Workload as the number of assigned roles cannot predict burnout.

H_2: Stress mediates the workload-burnout relationship.

H_3: Self-efficacy moderates the workload-burnout relationship.

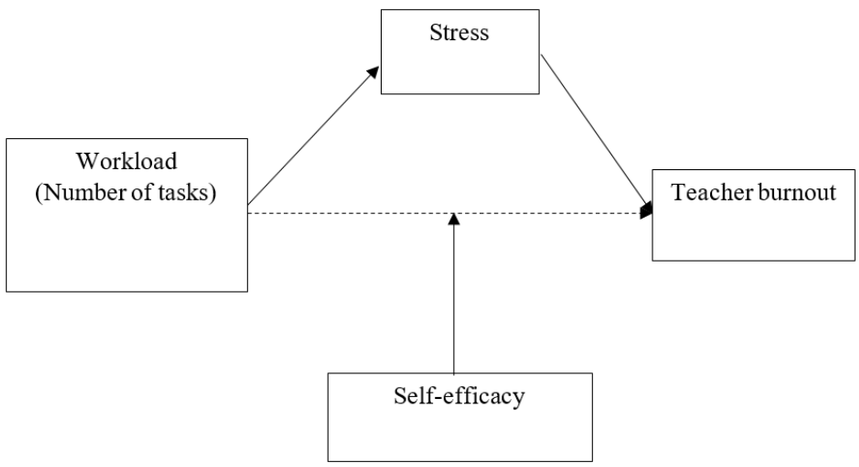

Figure 1. Hypothesized model of antecedents of teacher burnout.

2. Methods

2.1. Research Design

This study is a cross-sectional study. The targeted participants in this study were teachers holding multiple roles at school. All schools (from primary to high school) in Vinh Long province in Vietnam were requested to send the survey to 2 teachers who are officially holding at least 2 positions at school with the help of the local government. Teachers who agreed to participate in the survey then gathered at a common place and answered the survey on paper and pencil.

The protocol of this study was approved by the ethical committee, Vietnam Association of Psychology, decision number 201 dated 23/10/2023.

2.2. Research Population

A total of 117 teachers from 63 schools in Vinh Long province agreed to participate in the survey. The response rate was 83%. Table 1 shows the demographic information of the sample. The majority of the sample was female, middle-aged teachers, teaching secondary school. Half of the teachers have 10-20 years of experience. All teachers hold at least two officially assigned roles at school with 1 particular teacher holding seven different positions at school.

Table 1. Demographic characteristics of participants (N=117).

		N	%
Gender	Male	41	34.7
	Female	76	64.4
School level	Primary school	21	17.8
	Secondary school	60	50.8
	High school	36	30.5
Age	Under 30	24	20.5
	31-40	67	57.3
	Above 40	26	22.2
	M=35.51, SD=6.4		

		N	%
Working experience	Less than 5 years	18	15.3
	5-10 years	23	19.6
	10-20 years	64	54.7
	More than 20 years	10	8.4
	M=13.03, SD=10.4		
Workload	2 duties	61	52.1
	3 duties and above	56	47.9

2.3. Instruments

Teacher burnout was measured by the Maslach Burnout Inventory Educators survey (MBI-ES) (Maslach, Jackson, & Leiter, 1996). The survey includes 22 items divided into 3 subscales: emotional exhaustion, personal achievement (reversed score) and depersonalization. Participants were rated on a 7-point Likert scale: 0 (never) to 6 (everyday). Item ratings were summed for the three subscales and the total burnout scale. Higher scores implied higher burnout. The scale reliability was acceptable with a Cronbach alpha of 0.86. We also used the following cut-off scores to classify burnout scores into 3 profiles: low, medium and high. Emotional exhaustion: 0-16 (low), 17-26 (moderate) and 27 or higher, depersonalization: 0-6 (low), 7-12 (moderate) and 13 or higher and a lack of personal achievement: 0-30 (low), 31-36 (moderate) and 37 or higher. It should be noted that the creators of the scale no longer recommend cut-off scores due to their inconsistent validity (Maslach, Jackson, & Leiter, 2018) . In this study, a cut-off score was only used to compare with previous studies.

Independent measures in this study include workload, stress, self-efficacy and demographic factors.

Stress was measured by a one-item question. A single-item scale is suitable to measure perceived stress in non-diagnostic research. It also directs more focus on general stress perception than on dimensions of stress. Participants reported their current stress level when working as a teacher on a 10-point scale from 1 (no stress) to 10 (very stressful).

Self-efficacy was measured by the Ohio State teacher efficacy scale (OSTES) by Tschannen-Moran and Hoy (2001). The scale has 24 items to measure teacher's perceived self-efficacy in classroom management, teaching instruction and student engagement. Participants were rated on a 9-point scale. We calculated mean scores for the 3 subscales and the total self-efficacy scale. A higher score means higher self-efficacy. The scale was reliable with a Cronbach alpha of 0.98.

Workload was measured by the number of school duties officially given to a teacher.

Demographic factors examined include age, gender, school level (primary, secondary and high school) and working experience (years).

2.4. Data Analysis

The data were analyzed by SPSS version 20. A significant level of $p<0.05$ was used. The descriptive data calculated included the mean, standard deviation and frequency. The impacts of independent variables on teacher burnout were assessed by correlational and regression analyses. Mediation and moderation analyses were conducted using the process macro by Hayes.

3. Results

3.1. Burnout among Teachers

Tables 2 and 3 show the rate of burnout among teachers.

Table 2. Components of burnout in teachers and their correlation.

Factors	M	SD	1	2	3	4	5
1. Stress	6.16	2.36	-				
2. Burnout	53.16	14.26	0.358**	-			
3. Emotional exhaustion	23.68	5.47	0.441**	0.936**	-		
4. Depersonalization	11.82	4.30	0.365**	0.903**	0.798**	-	
5. Lack of personal achievement	17.65	5.70	0.186	0.921**	0.777**	0.738**	-

Note: ** $p<0.01$.

According to Table 2, the average score of burnout teachers was 53.16 with the highest score falls to emotional exhaustion followed by a lack of personal achievement and lastly, depersonalization. There were strong positive relationships between the three components of burnout and the total burnout score. In Table 2, the stress score was also reported to show that burnout was different from stress. The stress score is only moderately correlated with burnout and its components.

Table 3. Burnout profiles of teachers (%).

Burnout components	Low	Moderate	High
Emotional exhaustion	12.8	53.8	33.3
Depersonalization	10.3	45.3	44.4
Lack of personal achievement	99.1	0.9	0

Of the 3 components of burnout, emotional exhaustion and depersonalization were the two most frequently experienced symptoms as more than 1/3 of the sample experienced these symptoms at a high level. Nearly, 100% of teachers have a lack of personal achievement. In other words, teachers did not feel that they failed to meet work requirements.

Table 4. Correlation between teacher burnout and its antecedents.

Factors	Workload	Stress	Self-efficacy (Total)	Efficacy in teaching instruction	Efficacy in classroom management	Efficacy in student engagement
Burnout	-0.190*	0.358**	-0.368**	-0.343**	-0.394**	-0.269**
Emotional exhaustion	-0.133	0.441**	-0.277**	-0.257**	-0.288**	-0.212*
Depersonalization	-0.132	0.365**	-0.229*	-0.212*	-0.288**	-0.125
Lack of personal achievement	-0.247**	0.186	-0.482**	-0.452**	-0.491**	-0.375**

Note: * p<0.05; ** p<0.01.

3.2. Factors Predicting Teacher Burnout

Table 4 shows correlations between burnout and its antecedents: workload, stress and self-efficacy. Workload was significantly and negatively correlated with burnout and a lack of personal achievement but there were no other components implying that an increase in workload was associated with reduced burnout and increased personal achievement. Stress was positively correlated with burnout and all three components while self-efficacy was negatively correlated with burnout.

Table 5. Regression model of predictors of teacher burnout.

Factor	Coefficient	P
Workload	-0.24	0.667
Stress	2.03	0.000
Self-efficacy	-2.73	0.001
R^2=0.253, p=0.000		

Table 5 confirms H1 that there was no statistically significant main effect of the number of school duties on teacher burnout. Stress and self-efficacy were two significant predictors of teacher burnout: stress increases the risk of burnout while self-efficacy decreases burnout. This regression model explained 25.3% of the variance in teacher burnout.

To examine H2 and H3, we ran a combined moderation-mediation analysis based on Hayes' model 5 (Hayes, 2017) with workload as the predictor, burnout as the dependent variable, stress as the mediator and self-efficacy as the moderator.

For H2, stress was tested as the mediator of the workload-burnout relationship. There was no indirect effect of workload on stress as workload did not predict stress (b=0.09, p=0.417). When both workload and stress were included to predict burnout, there was a significant direct effect of position (b=10.16, p=0.01) and a significant indirect effect of stress (b=2.22, p=0.000). We concluded that H2 was not supported: stress did not mediate the workload-burnout relationship.

For H3, self-efficacy was tested as the moderator of the workload-burnout relationship. The interaction effect between workload and self-efficacy significantly predicted burnout (b=-1.32, p=0.010) meaning self-efficacy negatively moderated the impact of workload on burnout. The simple slop of workload on burnout was only significant at low self-efficacy (b=2.28, SE=1.10, p=0.041) but it was non-significant at higher levels of self-efficacy (b=0.21, SE=0.56, p=0.70 and b=-1.06, SE=0.62, p=0.091). The interaction term accounted for 5% of the variance in teacher burnout (R^2= 0.05, p=0,01). The moderation effect was visualized in Figure 2. At a low level of self-efficacy (5.96), the graph shows a steeper gradient: increasing workload leads to increasing teacher burnout. However, at higher levels of self-efficacy (7.52 and 8.49), the lines tend to straighten meaning that workload no longer leads to burnout. Hence, high self-efficacy was a protective factor against the impact of workload on burnout. H3 was supported.

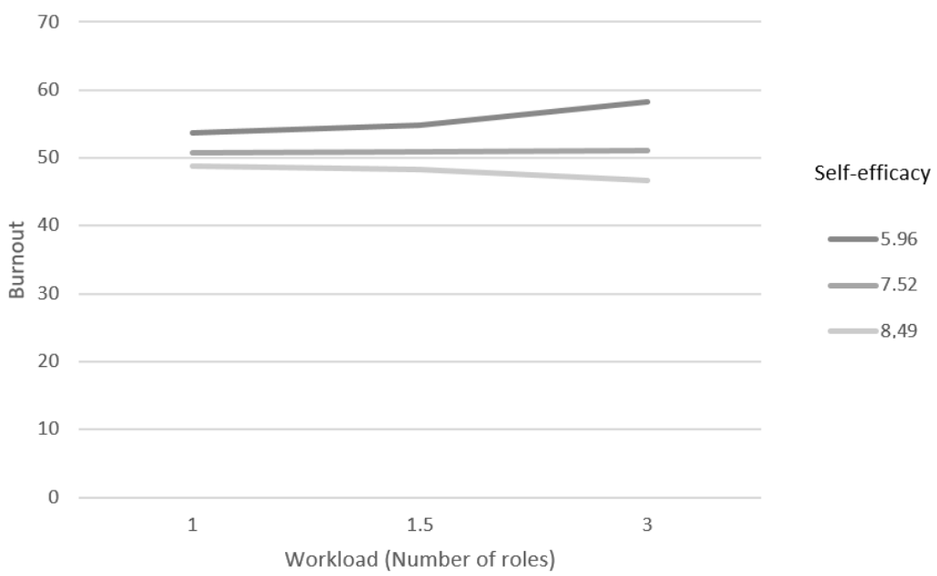

Figure 2. Self-efficacy moderates the effect of workload on burnout.

4. Discussion

Vietnam has experienced educational reform in the last few decades like other developing countries. Students benefit from the innovations in the curriculum. Teachers suffer from intensified responsibilities leading to an

increasing risk of mental health problems in teachers due to their intensified responsibilities. This is one of the first studies to evaluate burnout among Vietnamese teachers. It also examines the antecedents of burnout in interaction with each other through testing their moderation and mediation effects.

4.1. Burnout Rate among Teachers

We reported both the stress score and the burnout score to show that stress and burnout are separate phenomena. The stress score of teachers in this study is relatively similar to teachers in other studies. According to Von Der Embse, Mankin (2021) and Woods (2021), teachers reported a stress level of 6.5-6.6/10 using a single-item measure of stress. We can conclude that teachers in this study reported a similar stress level to teachers elsewhere.

This is the first study on teacher burnout in Vietnam; we were unable to compare the current data to others. We compared both raw burnout scores and cutoff scores with previous studies in other countries using MBI-ES to evaluate the burnout level of teachers in this sample. We found that Vietnamese teachers had a relatively lower level of emotional exhaustion than other samples. Kokkinos (2006) reported higher emotional exhaustion (27.37) and personal achievement (38.18) mean scores but much lower depersonalization (4.42) mean score in Greek primary and secondary teachers. Several countries indicated greater sample scores than those collected by Garcia-Arroyo, Segovia, and Peiró (2019) in their meta-analysis of teachers in 36 countries. Among the few studies reporting burnout levels using cutoff scores (García-Carmona et al., 2019), the rates of teachers with low emotional exhaustion and depersonalization in the current study were much lower than previous studies. The percentages of teachers with moderate emotional exhaustion and depersonalization in the current study were much higher while the percentage of low personal achievement in the current study was much lower (nearly 0% in comparison to 17 to 55% in previous studies). This showed that on average, Vietnamese teachers experienced a lower level of burnout than teachers in other countries. Burnout among Vietnamese teachers was associated with more symptoms of emotional exhaustion and depersonalization than personal achievement. However, Vietnamese teachers did not experience burnout as the rate of teachers with severer symptoms of burnout was much higher than that of low burnout.

When compared to studies on burnout in Vietnamese healthcare workers, the rates of moderate and high burnout in teachers were much higher than in healthcare workers before COVID-19 (Hong, Trang, Cam, Trang, & Trang, 2022; Lê, Phạm, & Nguyễn, 2023; Nguyen, Kitaoka, Sukigara, & Thai, 2018; Nguyen, Le, & Vo, 2020) but lower than healthcare workers during COVID-19 (Nguyễn & Vũ, 2021).

4.2. Effect of Workload, Self-Efficacy and Stress on Burnout

This study found that workload, perceived stress and self-esteem predicted teacher burnout in different ways. Workload as measured by the number of roles officially assigned to teachers did not directly predict teacher burnout. Burnout is not the result of increased quantity of work rather a higher workload can even increase a teacher's sense of personal achievement as found in the negative correlation between workload and lack of personal achievement. This result provides support for the conceptualization of workload as a psychological concept rather than the quantity of work (Kantowitz, 1987).

Perceived stress and self-efficacy had direct effects on teacher burnout: stress increased burnout while self-efficacy reduced burnout. This study further highlighted the importance of stress coping and self-perception in teachers' mental health as previous studies have confirmed the role of these teacher-related factors on burnout (Oliveira et al., 2021; Park & Shin, 2020). Burnout occurs when teachers are unable to cope with the stress of their work. In this study, stress was negatively correlated with total burnout, emotional exhaustion and depersonalization implying that teachers who fail to cope with work stress will feel exhausted and detached. However, teachers who have a high level of self-efficacy or confidence in their abilities to do tasks are less inclined to experience burnout. Self-efficacy helps teachers feel more capable to teach, organize the classroom and deal with students' disruptive behaviors (Brouwers & Tomic, 2000; Friedman, 2003), thereby helping them maintain work productivity and work relationships better.

The notable findings of this study are the significant moderating effect of self-efficacy and the non-significant mediating effect of stress in the workload-burnout relationship. We predict that workload increases stress which in turn increases burnout but this mediation effect was not supported in this study. This finding contradicts popular belief about the quantity of work as a predictor of stress and burnout yet it fits into the psychological framework of stress and burnout.

Self-efficacy moderated the effect of workload on burnout. In teachers with low self-efficacy, workload significantly predicted burnout. When teachers did not believe in their professional ability, increased workload would increase their risk of burnout. However, in teachers with high self-efficacy, this effect disappeared implying that burnout was unrelated to the number of tasks assigned to the teachers. In other words, self-efficacy acts as a protective factor for teachers. In the case of Vietnamese teachers, all teachers receive mandatory training on school counseling as a part of annual national wide teacher professional training programs. It is plausible that the training has made teachers feel more capable in managing students and dealing with their own problems, thereby increases their self-efficacy and reduce their burnout even though many teachers are doing the multiple duties without monetary benefits.

4.3. Implications for Reducing Teacher Burnout

The findings of this study point out the importance of enhancing teacher stress management and self-efficacy in protecting them from burnout. Burnout prevention is not about reducing the quantity of work; it is about making teachers increase their self-efficacy and reduce their stress. School managers need to target teachers' stress coping skills and provide a teacher support system to make teachers feel more capable.

It is interesting to note that existing interventions to reduce teacher burnout tend to focus on stress management and social support seeking such as teaching coping skills, relaxation techniques, mindfulness and social-emotional skills (Oliveira et al., 2021) but a meta-review on teacher burnout interventions found small effect

sizes of these interventions (Iancu, Rusu, Măroiu, Păcurar, & Maricuţoiu, 2018).These methods primarily address stress management while largely ignoring self-efficacy. When self-efficacy becomes a target in intervention, burnout can be reduced (Ghasemi, Herman, & Reinke, 2023).

4.4. Strength and Limitation

This study is the first to measure burnout among teachers in Vietnam. This study contributes to the vast worldwide literature on burnout in educational settings and its antecedents. The fact that being given more duties increases self-efficacy among teachers might reflect an interesting cultural phenomenon. Maslach mentioned the areas of work life in which reward plays an important role in employee's engagement. It is possible that in collectivistic cultures where social recognition for personal effort is important, the role of rewards especially intangible rewards becomes even more significant.

This study still has some limitations. The sample size is still small and the subjects in the sample are very similar to each other from educational to cultural background, so it is important for readers to keep this in mind when generalizing the findings to other contexts.

5. Conclusion

This study examined burnout among teachers in Vietnam and tested how teacher-related factors interact with each other to affect burnout. Several teachers displayed clear signs of emotional exhaustion and many asserted a medium level of burnout. The non-significant mediation relationship between the number of duties and burnout and the significant direct effect of stress on burnout show that stressed teachers are likely to have burnout but teachers holding multiple duties might not feel stressful, so stress does not explain the connection between workload and burnout. The significant moderation effect of self-efficacy on burnout even though teachers are assigned multiple tasks, so long as they feel capable of the work, they face a lower risk of burnout. This study provides support for burnout and workload as psychological concepts and opens up suggestions for psychological training program to enhance teachers' self-efficacy as a protective factor from burnout.

References

Apple, M. W. (1988). *Teachers and texts: A political economy of class and gender relations in education*. New York: Psychology Press.

Brouwers, A., & Tomic, W. (2000). A longitudinal study of teacher burnout and perceived self-efficacy in classroom management. *Teaching and Teacher Education, 16*(2), 239-253. https://doi.org/10.1016/S0742-051X(99)00057-8

Burke, R. J., & Greenglass, E. (1995). A longitudinal study of psychological burnout in teachers. *Human Relations, 48*(2), 187-202. https://doi.org/10.1177/001872679504800205

Diehl, E., Rieger, S., Letzel, S., Schablon, A., Nienhaus, A., Escobar Pinzon, L. C., & Dietz, P. (2021). The relationship between workload and burnout among nurses: The buffering role of personal, social and organisational resources. *PloS One, 16*(1), e0245798. https://doi.org/10.1371/journal.pone.0245798

Eikenhout, L. M. J., Delahaij, R., Van Dam, K., Kamphuis, W., Hulshof, I. L., & Van Ruysseveldt, J. (2022). Chronic stressors and burnout in Dutch police officers: Two studies into the complex role of coping self-efficacy. *Frontiers in Psychology, 13*, 1054053. https://doi.org/10.3389/fpsyg.2022.1054053

Fadare, O. O., Doucette, W. R., Gaither, C. A., Schommer, J. C., Arya, V., Bakken, B. K., . . . Witry, M. J. (2022). Exploring the moderating role of job resources in how job demands influence burnout and professional fulfillment among US pharmacists. *Research in Social and Administrative Pharmacy, 18*(10), 3821-3830. https://doi.org/10.1016/j.sapharm.2022.04.003

Fogarty, T. J., Singh, J., Rhoads, G. K., & Moore, R. K. (2000). Antecedents and consequences of burnout in accounting: Beyond the role stress model. *Behavioral Research in Accounting, 12*, 31-68.

Friedman, I. A. (2003). Self-efficacy and burnout in teaching: The importance of interpersonal-relations efficacy. *Social Psychology of Education, 6*(3), 191-215.

Garcia-Arroyo, J. A., Segovia, O. A., & Peiró, J. M. (2019). Meta-analytical review of teacher burnout across 36 societies: The role of national learning assessments and gender egalitarianism. *Psychology & Health, 34*(6), 733-753. https://doi.org/10.1080/08870446.2019.1568013

García-Carmona, M., Marín, M. D., & Aguayo, R. (2019). Burnout syndrome in secondary school teachers: A systematic review and meta-analysis. *Social Psychology of Education, 22*, 189-208. https://doi.org/10.1007/s11218-018-9471-9

Ghasemi, F., Herman, K. C., & Reinke, W. M. (2023). A cognitive-behavioral approach to teacher burnout: A randomized controlled trial of a group therapy program. *Anxiety, Stress, & Coping, 36*(4), 533-541. https://doi.org/10.1080/10615806.2022.2103118

Goddard, R., & Goddard, M. (2006). Beginning teacher burnout in Queensland schools: Associations with serious intentions to leave. *The Australian Educational Researcher, 33*(2), 61-75. https://doi.org/10.1007/bf03216834

Görgens-Ekermans, G., & Brand, T. (2012). Emotional intelligence as a moderator in the stress–burnout relationship: A questionnaire study on nurses. *Journal of Clinical Nursing, 21*(15-16), 2275-2285. https://doi.org/10.1111/j.1365-2702.2012.04171.x

Guglielmi, R. S., & Tatrow, K. (1998). Occupational stress, burnout, and health in teachers: A methodological and theoretical analysis. *Review of Educational Research, 68*(1), 61-99. https://doi.org/10.2307/1170690

Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York: Guilford Publications.

Hong, T. B. T., Trang, N. N. T., Cam, V. T., Trang, T. L., & Trang, H. P. T. (2022). Effort–reward ratio, over-commitment and burnout: A cross-sectional study among Vietnamese healthcare professionals. *Cogent Psychology, 9*(1), 2075614. https://doi.org/10.1080/23311908.2022.2075614

Iancu, A. E., Rusu, A., Măroiu, C., Păcurar, R., & Maricuţoiu, L. P. (2018). The effectiveness of interventions aimed at reducing teacher burnout: A meta-analysis. *Educational Psychology Review, 30*, 373-396. https://doi.org/10.1007/s10648-017-9420-8

Kantowitz, B. H. (1987). Mental workload. In P. A. Hancock (Ed.), Advances in Psychology: Human factors psychology. In (Vol. 47, pp. 81-121). North-Holland: Elsevier.

Kokkinos, C. M. (2006). Factor structure and psychometric properties of the Maslach burnout inventory-educators survey among elementary and secondary school teachers in Cyprus. *Stress and Health: Journal of the International Society for the Investigation of Stress, 22*(1), 25-33. https://doi.org/10.1002/smi.1079

Lê, V. H., Phạm, T. T. H., & Nguyễn, B. T. (2023). Professional burnout of operating room nurses at the national obstetrics hospital in 2022. *Tạp chí Khoa học Điều dưỡng, 6*(02), 91-99. https://doi.org/10.54436/jns.2023.02.569

Lubbadeh, T. (2020). Job burnout: A general literature review. *International Review of Management and Marketing, 10*(3), 7-15. https://doi.org/10.32479/irmm.9398

MacDonald, W. (2003). The impact of job demands and workload on stress and fatigue. *Australian Psychologist, 38*(2), 102-117. https://doi.org/10.1080/00050060310001707107

Madigan, D. J., & Kim, L. E. (2021). Does teacher burnout affect students? A systematic review of its association with academic achievement and student-reported outcomes. *International Journal of Educational Research, 105*, 101714. https://doi.org/10.1016/j.ijer.2020.101714

Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior*, *2*(2), 99-113. https://doi.org/10.1002/job.4030020205
Maslach, C., Jackson, S. E., & Leiter, M. P. (1996). *Maslach burnout inventory manual* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.
Maslach, C., Jackson, S. E., & Leiter, M. P. (2018). *Maslach burnout inventory manual* (4th ed.). Menlo Park, CA: Mind Garden, Inc.
Maslach, C., & Leiter, M. P. (2016). Burnout. In G. Fink (Ed) Stress: Concepts, cognition, emotion, and behavior. In (pp. 351-357). Cambridge: Academic Press. https://doi.org/10.1016/B978-0-12-800951-2.00044-3.
Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, *52*(1), 397-422. https://doi.org/10.1146/annurev.psych.52.1.397
McCormick, J., & Barnett, K. (2011). Teachers' attributions for stress and their relationships with burnout. *International Journal of Educational Management*, *25*(3), 278-293. https://doi.org/10.1108/09513541111120114
Nguyen, H. T. T., Kitaoka, K., Sukigara, M., & Thai, A. L. (2018). Burnout study of clinical nurses in Vietnam: Development of job burnout model based on Leiter and Maslach's theory. *Asian Nursing Research*, *12*(1), 42-49. https://doi.org/10.1016/j.anr.2018.01.003
Nguyen, M., Le, P., & Vo, M. (2020). A study on the relationship between burnout and quality of life among nurses in Thu Duc District Hospital, Vietnam. *Research Square*. https://doi.org/10.21203/rs.3.rs-33664/v1
Nguyễn, N. B., & Vũ, T. S. (2021). Current status of professional burnout of doctors and nurses at a class 1 hospital in Vietnam, 2020. *Vietnam Medical Journal*, *502*(2), 1-4. https://doi.org/10.51298/vmj.v502i2.632
Oliveira, S., Roberto, M. S., Veiga-Simão, A. M., & Marques-Pinto, A. (2021). A meta-analysis of the impact of social and emotional learning interventions on teachers' burnout symptoms. *Educational Psychology Review*, *33*(4), 1779-1808. https://doi.org/10.1007/s10648-021-09612-x
Park, E.-Y., & Shin, M. (2020). A meta-analysis of special education teachers' burnout. *SAGE Open*, *10*(2), 2158244020918297. https://doi.org/10.1177/2158244020918297
Portoghese, I., Galletta, M., Coppola, R. C., Finco, G., & Campagna, M. (2014). Burnout and workload among health care workers: The moderating role of job control. *Safety and Health at Work*, *5*(3), 152-157. https://doi.org/10.1016/j.shaw.2014.05.004
Sabagh, Z., Hall, N. C., & Saroyan, A. (2018). Antecedents, correlates and consequences of faculty burnout. *Educational Research*, *60*(2), 131-156. https://doi.org/10.1080/00131881.2018.1461573
Shen, B., McCaughtry, N., Martin, J., Garn, A., Kulik, N., & Fahlman, M. (2015). The relationship between teacher burnout and student motivation. *British Journal of Educational Psychology*, *85*(4), 519-532. https://doi.org/10.1111/bjep.12089
Skaalvik, E. M., & Skaalvik, S. (2010). Teacher self-efficacy and teacher burnout: A study of relations. *Teaching and Teacher Education*, *26*(4), 1059-1069. https://doi.org/10.1016/j.tate.2009.11.001
Skaalvik, E. M., & Skaalvik, S. (2020). Teacher burnout: relations between dimensions of burnout, perceived school context, job satisfaction and motivation for teaching. A longitudinal study. *Teachers and Teaching*, *26*(7-8), 602-616. https://doi.org/10.1080/13540602.2021.1913404
Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, *17*(7), 783-805. https://doi.org/10.1016/s0742-051x(01)00036-1
Von Der Embse, N., & Mankin, A. (2021). Changes in teacher stress and wellbeing throughout the academic year. *Journal of Applied School Psychology*, *37*(2), 165-184. https://doi.org/10.1080/15377903.2020.1804031
Woods, S. (2021). *The relationship between teacher stress and job satisfaction as moderated by coping using single-item measures*. Doctoral Dissertation. University of Missouri-Columbia.
Xanthopoulou, D., Bakker, A. B., Dollard, M. F., Demerouti, E., Schaufeli, W. B., Taris, T. W., & Schreurs, P. J. (2007). When do job demands particularly predict burnout? The moderating role of job resources. *Journal of Managerial Psychology*, *22*(8), 766-786. https://doi.org/10.1108/02683940710837714
Yang, Y., & Hayes, J. A. (2020). Causes and consequences of burnout among mental health professionals: A practice-oriented review of recent empirical literature. *Psychotherapy*, *57*(3), 426-436. https://doi.org/10.1037/pst0000317

Appendix

The appendices present the instruments used in this study to collect data.

A. OSTES

Please rate these items on a scale of 1 (nothing) to 9 (a great deal)

1. To what extent can you use a variety of assessment strategies?
2. To what extent can you provide an alternative explanation or example when students are confused?
3. To what extent can you craft good questions for your students?
4. How well can you implement alternative strategies in your classroom?
5. How well can you respond to difficult questions from your students?
6. How much can you do to adjust your lessons to the proper level for individual students?
7. To what extent can you gauge student comprehension of what you have taught?
8. How well can you provide appropriate challenges for very capable students?
9. How much can you do to control disruptive behavior in the classroom?
10. How much can you do to get children to follow classroom rules?
11. How much can you do to calm a student who is disruptive or noisy?
12. How well can you establish a classroom management system with each group of students?
13. How well can you keep a few problem students from ruining an entire lesson?
14. How well can you respond to defiant students?
15. To what extent can you make your expectation clear about student behavior?
16. How well can you establish routines to keep activities running smoothly?
17. How much can you do to get students to believe they can do well in schoolwork?
18. How much can you do to help your students value learning?
19. How much can you do to motivate students who show low interest in schoolwork?
20. How much can you assist families in helping their children do well in school?
21. How much can you do to improve the understanding of a student who is failing?
22. How much can you do to help your students think critically?
23. How much can you do to foster student creativity?
24. How much can you do to get through to the most difficult students?

B. MBI-ES

Please rate these items on a scale of 0 (Never) to 6 (Everyday)

1. I feel emotionally drained from my work
2. I feel used up at the end of the work day
3. I feel fatigued when I get up in the morning and have to face another day on the job
4. Working with people all day is really a strain for me

5. I feel burned out from my work
6. I feel frustrated by my job
7. I feel I'm working too hard my on my job
8. Working with people directly puts too much stress on me
9. I feel like I'm at the end of my rope
10. I can easily understand how my students feel about things
11. I deal very effectively with the problems of my students
12. I feel I'm positively influencing other people's lives through my work
13. I feel very energetic
14. I can easily create a relaxed atmosphere with my students
15. I feel exilarated after working closely with my students
16. I have accomplished many worthwhile things in the job
17. In my work, I deal with emotional problems very easily
18. I feel I treat some students as if they were impersonal 'objects"
19. I've become more careless toward people since I took this job
20. I worry that this job is hardening me emotionally
21. I don't really care what happens to some students
22. I feel students blame me for some of their problems

C. Stress measurement

How stressful is your job?

1(no stress)----2----3----4----5----6----7----8----9----10 (very stressful)

D. Demographic questions

1. Gender
2. Age
3. School
4. Years of teaching experience
5. Number of positions officially assigned at school