

## The role of supportive leadership style in enhancing job performance: A quantitative study of secondary school teachers in Pakistan

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### ABSTRACT

Secondary school teachers in Pakistan face significant occupational stressors that can impair their job performance, particularly excessive workload and emotional exhaustion. While supportive leadership has been identified as a potential buffer against workplace stressors, its effectiveness in the Pakistani educational context remains understudied. Drawing on Job-Demands-Resources (JD-R) theory, this study investigated the relationships between workload, emotional exhaustion, and job performance among public sector secondary school teachers, and examined whether supportive leadership style moderates these relationships. Data were collected through a pen-and-paper survey of 274 teachers from public secondary schools in Pakistan. Partial Least Squares Structural Equation Modeling (PLS-SEM) analysis revealed that workload negatively impacts teachers' job performance and is positively associated with emotional exhaustion. Contrary to theoretical expectations, the findings indicate that principals' supportive leadership style neither moderates the relationship between workload and emotional exhaustion nor influences teachers' job performance. These results contribute to our understanding of the limitations of supportive leadership in resource-constrained educational settings and suggest the need for systemic interventions beyond leadership style to address teacher workplace stress.

**Keywords:** Supportive leadership, Job performance, Emotional exhaustion, Job Demands-Resources (JD-R) theory, Secondary school teachers, Workload, Pakistan, Public education

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# 1. INTRODUCTION

## 1.1 Education and teachers in Pakistan

Teachers are fundamental architects of society, particularly in developing countries like Pakistan, where they serve as cornerstones of human capital formation and sustainable development. Their influence extends beyond classroom outcomes to shaping the collective future of nations through their impact on developing responsible, educated citizens (Memon, 2007; Rafi et al., 2024). However, Pakistan's education system faces multifaceted challenges characterized by historical neglect, systemic issues, and inadequate funding (Sain, 2023; Rifaqt et al., 2021). The quality of education directly depends on the quality of teachers (Gull & Akhtar, 2019; Madani, 2019), yet many teachers lack professional qualifications and opportunities for continuous professional development (Memon, 2007; Pasha et al., 2019; Qadeer et al., 2024).

In Pakistan's secondary schools, particularly in the public sector which remains the primary education provider, teachers operate under considerable stress due to systemic and institutional challenges (Halai & Durrani, 2021). Multiple stressors, including excessive workload, overcrowded classrooms, poor working conditions, and limited professional support, contribute to emotional exhaustion and compromised performance (Gull & Akhtar, 2019). The situation is further complicated by political interference in appointments and decision-making, creating a climate of apprehension rather than collaboration (Sain, 2023). The system's emphasis on rote learning rather than critical thinking and problem-solving skills further compounds these challenges (Ahmad et al., 2014; Qadeer et al., 2024).

Teacher effectiveness in this challenging environment depends on multiple factors, including qualifications, experience, training, motivation, and particularly the working environment and leadership support (Memon, 2007; Madani, 2019). While teachers can significantly impact student outcomes through resourcefulness and professional commitment to achieve better learning outcomes, they must be equipped to move beyond traditional teaching methods towards more interactive and engaging approaches that foster critical thinking and practical application of knowledge (Rafi et al., 2024; Ahmad et al., 2014).

## 1.2 Leadership

Leadership in secondary education fundamentally aims to improve teaching and learning for enhanced student achievement (York-Barr & Duke, 2004). Research identifies multiple leadership styles in educational settings, including supportive leadership which emphasizes building approachable relationships with teachers, directive leadership which focuses on providing clear task directions and expectations, achievement-oriented leadership which sets challenging performance standards, and distributed leadership which shares responsibility across roles (Saleem et al., 2020). School Principals, as key leaders, significantly influence both operational efficiency and academic performance through their impact on teacher motivation, working conditions, and institutional climate (Naz et al., 2024; Leithwood et al., 2019).

In the Global South, particularly Pakistan, educational leadership faces unique challenges shaped by colonial legacies and socio-political complexities that continue to influence educational practices (Halai & Durrani, 2021; Khushik & Diemer, 2020). While traditional authority-based structures persist in Pakistan's secondary education sector, evidence suggests that more collaborative leadership approaches can enhance teacher effectiveness and school outcomes (Memon, 2007). Studies demonstrate that effective leadership plays a critical role in improving school culture, teaching practices, and student achievement, with principals' actions directly impacting school readiness and student outcomes through alignment and optimization of resources (Yeigh et al., 2018). Saleem et al. (2020) found that in Pakistan's private secondary schools, directive and supportive leadership styles had significant positive effects on teacher job performance, highlighting the importance of cultural context in leadership effectiveness.

However, there remains limited empirical evidence examining how supportive leadership practices influence teacher performance and well-being in Pakistan's unique educational landscape. While research demonstrates that effective Principal leadership can significantly impact student achievement through alignment and optimization of school resources (Yeigh et al., 2018), the relationship between supportive leadership and teacher performance in Pakistan's secondary schools represents a crucial area for investigation, particularly given the persistent challenges teachers face with excessive workload, limited professional support, and emotional exhaustion (Gull & Akhtar, 2019; Halai & Durrani, 2021).

### **1.3 Job Demands-Resources Theoretical Framework**

The Job Demands-Resources (JD-R) theory provides a framework for understanding how workplace characteristics, particularly supportive leadership, influence employee well-being and performance through two parallel processes: a health impairment process and a motivational process (Bakker, Demerouti, & Sanz-Vergel, 2023; Skaalvik & Skaalvik, 2017). The theory categorizes job characteristics as either demands (aspects requiring sustained physical, psychological, or organizational effort) or resources (elements that help achieve work goals, reduce job-related costs, and stimulate growth) (Bakker & Demerouti, 2018; Skaalvik & Skaalvik, 2018). According to JD-R theory, while excessive job demands can lead to strain and exhaustion, adequate job resources can buffer these negative effects and foster engagement and positive outcomes (Bakker & Demerouti, 2014; Bakker, Demerouti, & Sanz-Vergel, 2023).

In the educational context, supportive leadership represents a crucial job resource that could potentially moderate the relationship between teachers' job demands and their performance outcomes. The JD-R theory suggests that such leadership support becomes especially valuable when job demands are high, potentially helping teachers cope with work-related stress and maintain performance levels (Bakker & Demerouti, 2014, 2018).

Conservation of Resource (COR) theory complements JD-R theory by explaining how exposure to workplace stressors depletes employees' psychological resources, leading to emotional exhaustion and diminished performance (Majeed, Irshad & Bartels, 2021). Unlike JD-R theory, which doesn't explicitly address the moderating effects of resources on the relationship between

job demands and emotional exhaustion, COR theory posits that personal and organizational resources—including supportive leadership—can buffer against these negative effects.

This theoretical foundation is particularly pertinent for understanding how supportive leadership might influence teacher performance in Pakistan's resource-constrained public education system, where educators face significant workplace demands with limited organizational support.

#### **1.4 Research Objectives**

Based on these theoretical and contextual foundations, this study aims to examine whether supportive leadership moderates the relationships between workload, emotional exhaustion, and job performance among public secondary school teachers in Pakistan. Drawing on JD-R theory (Bakker & Demerouti, 2018) and previous research on educational leadership (Halai & Durrani, 2021; Wahlstrom & Louis, 2008), we investigate:

1. The relationship between workload and job performance
2. The mediating role of emotional exhaustion in this relationship
3. The moderating effect of supportive leadership on these relationships

This research addresses a significant gap in our understanding of how supportive leadership practices might buffer against workplace stressors in Pakistan's unique educational context (Saleem et al., 2020; Naz et al., 2024).

#### **1.5 Theoretical Framework and Hypothesis Development**

##### **The Critical Role of Teachers and Job Performance**

Schools are devoted to promoting the advancement of learning, with teachers and students serving as two integral parts of the education system (Logitapraja et al., 2019). Teachers play a substantial role in educating students (Tehseen & Hadi, 2015) and are crucial in achieving educational goals and maintaining quality education standards through their performance (Kartini & Fitria, 2020). Outstanding teacher performance directly influences students' learning processes (Marwat et al., 2012). Teachers' job performance is defined as the skill or ability to fulfill responsibilities to achieve desired educational goals (Ndidi & Alike, 2018).

##### **Job Demands-Resources Theory in Education**

The teaching profession is interlinked with various job stressors, termed job demands. According to Job Demands-Resources (JD-R) theory, every profession encompasses two types of characteristics: job demands and job resources (Bakker & Demerouti, 2014, 2017; Demerouti et al., 2001). Job demands are aspects that require significant energy expenditure, while job resources (such as performance feedback, social support, and leadership style) help employees manage these stressors and achieve organizational goals (Bakker & Demerouti, 2018). Among

numerous job demands including student misbehavior, role ambiguity, time pressure, and role conflict, workload emerges as one of the most challenging demands, often leading to emotional exhaustion and hindering teachers' job performance (Skaalvik & Skaalvik, 2018; LePine et al., 2005).

## **1.6 Construct development**

### **Workload and Job Performance**

Teaching is consistently identified as a high-stress profession due to its inherent demands. Research across multiple countries identifies workload as one of the most significant job demands affecting teachers (Skaalvik & Skaalvik, 2018; Desrumaux et al., 2015; Liu & Onwuegbuzie, 2012). Workload frequently leads to teacher stress (Ouellette et al., 2018; Fathi et al., 2021; Greenier et al., 2021), subsequently impairing job performance and contributing to burnout (Ghanizadeh & Jahedizadeh, 2015; Zhao et al., 2022).

**Hypothesis 1.** *Teacher workload is negatively associated with job performance.*

### **Workload and Emotional Exhaustion**

Cross-cultural research demonstrates a consistent relationship between teachers' workload and emotional exhaustion (Johnson & Birkeland, 2003; Neves de Jesus & Lens, 2005; Skaalvik & Skaalvik, 2015). Emotional exhaustion represents one dimension of burnout, alongside depersonalization and reduced personal accomplishment (Maslach, 2003). Burnout, first conceptualized by Freudenberger (1974), describes "a state of mental and physical exhaustion caused by one's professional life."

Emotional exhaustion, characterized by energy depletion, debilitation, and chronic fatigue (Pines & Aronson, 1988; Schwarzer et al., 2000), is widely considered the core component of burnout (Cropanzano et al., 2020; Lee & Ashforth, 1993). In work and organizational psychology, burnout consistently ranks among the most significant indicators of mental health and well-being (Baeriswyl et al., 2016).

**Hypothesis 2.** *Teacher workload is positively associated with emotional exhaustion.*

### **Emotional Exhaustion and Job Performance**

Longitudinal research by Wright and Bonett (1997) established emotional exhaustion as a predictor of job performance. Multiple empirical studies have confirmed a significant negative relationship between emotional exhaustion and job performance (Jones & Best, 1995; Leiter et al., 1998; Wright & Cropanzano, 1998).

**Hypothesis 3.** *Teacher emotional exhaustion negatively affects job performance.*

### **The Mediating Role of Emotional Exhaustion**

The JD-R model suggests that burnout emerges from sustained exposure to stressful conditions (Bakker & Demerouti, 2017). In education, teaching is characterized by multiple job demands or stressors, with workload being a critical yet understudied factor (Kimura et al., 2018). Teachers often perceive their role as increasingly challenging (Vandenberghe & Huberman,

1999; Kyriacou, 2001), with excessive workload leading to emotional exhaustion, particularly when task demands exceed personal resources or face time constraints (Santavirta & Solovieva, 2007). Recent research supports emotional exhaustion's mediating role between workload and job performance (Ali et al., 2020), aligning with JD-R model predictions (Bakker & Demerouti, 2003).

**Hypothesis 4.** *Emotional exhaustion mediates the relationship between workload and job performance among teachers.*

### **Moderating Role of Supportive Leadership**

Research over the past three decades has demonstrated that job characteristics significantly influence employee well-being. Studies have shown that job demands, including time pressure, workload, and role ambiguity, contribute to emotional exhaustion, sleep disorders, and health problems (Halbesleben & Buckley, 2004). These negative outcomes are particularly evident in educational settings, where teachers frequently confront excessive workloads with limited institutional support (Skaalvik & Skaalvik, 2018).

Supportive leadership may serve as a critical protective resource by providing emotional support, fostering a positive work environment, and offering practical assistance that helps teachers manage excessive workloads (Prodanova & Kocarev, 2021). School principals who demonstrate supportive leadership behaviors can potentially mitigate the stress pathway between high job demands and emotional exhaustion by helping teachers prioritize tasks, providing constructive feedback, and creating collaborative work environments that distribute responsibilities more equitably (Bakker et al., 2014).

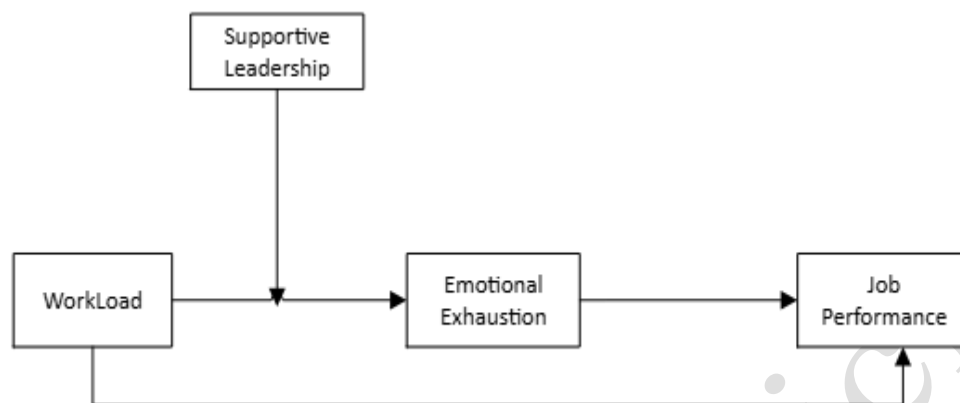
In the Pakistani educational context, where teachers face significant systemic challenges including resource constraints and bureaucratic pressures, supportive leadership could theoretically play an essential role in preserving teachers' psychological well-being despite high workloads. This suggests that teachers who perceive their principals as supportive will experience a weaker relationship between workload and emotional exhaustion compared to those who perceive lower levels of supportive leadership. Testing this hypothesis will contribute to understanding whether supportive leadership can function as an effective buffer against workplace stress in Pakistan's resource-constrained educational environment. Drawing on this theoretical foundation, we hypothesize:

**Hypothesis 5:** *Principal supportive leadership style moderates the relationship between workload and teachers' emotional exhaustion.*

### **1.7 Model**

The theoretical model guiding this research proposes that supportive leadership has positive outcomes for teachers' performance. The research investigated the effect on teachers' job performance of the supportive leadership style of secondary school principals. The model proposes that the effect of a principal's supportive leadership style also has positive impacts on teachers' reported workload and emotional exhaustion. The theoretical model, in particular,

suggests that the effects of supportive leadership style on job performance has only indirect pathways, moderated through workload and emotional exhaustion.



**Figure 1. Theoretical framework: Supportive leadership - Job Performance model**

## 2. METHODOLOGY

### 2.1 Procedure

A convenience sampling technique was used to identify the participant sample for the survey, to address issues of limited budget, transport and time constraints. Public secondary schools in Rawalpindi, Pakistan were invited to participate in the survey. The sample was of male and female teachers, teaching grade 9 and 10 in the city of Rawalpindi, Pakistan, that were geographically proximate and where Principals had indicated willingness for the survey to be distributed to teachers in their school. The target sample was 1,000 respondents, calculated from an estimate of the overall teacher population of grade 9 and 10 teachers of public schools in the geographical area, taking into account variations in teacher numbers due to varying student enrolments by school size. An aim of more than 200 respondents was determined to support Barrett's (2007) structural equation modelling rule of thumb.

Hard copies of the survey were provided to the Principal of each participating public secondary school. Principals were responsible to distribute the survey to teachers in the school, with agreement that the responses would be collected personally by the researcher two weeks later. The survey included a statement of the research objectives and a description of the topics covered by the survey questions. 294 responses were collected and data was entered into an Excel Spreadsheet for cleaning. 20 surveys were removed from the sample due to duplication and due to missing values.

### 2.2 Measures

Validated scales to measure job performance, workload, emotional exhaustion and supportive leadership style were combined into a single questionnaire. The questionnaire was divided into two sections. The first section requested demographic information from survey respondents; the second section contained item statements from the validated scales. All four validated

scales were adapted for the survey context. A 5-point Likert scale was used to measure level of agreement (from “strongly disagree” = 1 to “strongly agree” = 5).

**Job Performance.** To measure job performance, Wolamasi et. al’s (2019) fifteen item Job Performance Scale was used. The scale consisted of items such as ‘I use diverse learning methods and strategies to teach for understanding’. Reliability of the job performance scale is .95.

**Supportive Leadership.** To measure Supportive Leadership Style, Indvik’s Path Goal Leadership Questionnaire (1985) was used. The scale consisted of five item statements, including ‘Our principal helps teachers overcome problems that stop them from carrying out their tasks’. Reliability score of the scale is .81.

**Job demands (workload).** To measure Job Demands (workload), Beehr and colleagues’ Workload Scale (1976) was included in the survey. The workload scale consisted of 3 item statements, including ‘I can achieve the performance standard expected for my job as a teacher’.. reliability of the scale is .78.

### 2.3 Data Analysis

In this research both content and construct validity were determined using SmartPLS software version 4.0. For the content validity, different scales were combined into a single survey and sent to eight academics with expertise in education from four universities. They were asked to give feedback on the survey. On the basis of their suggestions grammatical mistakes were removed, after improving the language survey was used for the data collection.

For construct validation, confirmatory factor analysis (CFA) was completed. Confirmatory analysis is based on composite, internal and discriminant validity, which confirms relevance or irrelevance of item statements of instruments. The assessment of the measurement model's goodness of fit involved evaluating construct composite reliability, convergent and discriminant validity (Hsu & Lin, 2008; Lim, 2015). Construct reliability was gauged using composite reliability (Fornell & Larcker, 1981), with a recommended threshold value exceeding .70 (Liu & Wang, 2016).

Discriminant validity of the instrument was traditionally evaluated by comparing the square root of average variance extracted (AVE) with the correlation of constructs, as proposed by Fornell and Larcker (1981). However, this method has faced criticism from several researchers (Benitez et al., 2019; Fornell & Larcker, 1981). Henseler et al. (2015) advocated for the adoption of the Heterotrait-Monotrait (HTMT) ratio to assess construct discriminant validity. The recommended threshold for HTMT ratios is less than 0.85 (Henseler et al., 2015; Benitez et al., 2019; Ogbeibu et al., 2018).

Before proceeding to test the model, model fit was assessed using three parameters: Standardized Root Mean Square Residual (SRMR), Normed Fit Index (NFI), and exact model fit based on bootstrapped statistical inference. SRMR, defined as the difference between observed and model-implied correlation matrices, with values below 0.08 considered indicative of good fit (Hu & Bentler, 1998), was introduced by Henseler et al. (2014) as a PLS-SEM goodness-of-fit measure to prevent model misspecification. The NFI, an incremental fit



measure comparing the proposed model's Chi-square value with a meaningful benchmark (Bentler & Bonett, 1980), typically suggests acceptable fit with values above 0.9.

The full model assessment was evaluated using Partial Least Squares Structural Equation Modelling (PLS-SEM) in SmartPLS software version 4.

## **2.4 Ethical Considerations and Academic Integrity**

The institution of the researcher did not require them to submit a research design plan with participant recruitment protocols to an institution ethics committee for approval; research integrity was overseen by the supervisor who signed a certificate of compliance with the University's Research Code of Conduct. The researcher provided a copy of the research design to an experienced Australian researcher and asked them to provide an independent assessment of the protocols for compliance with ethical principles as set out in the Australian Code for the Responsible Conduct of Research (2018). In the final research design, participants were provided with information about the project at the top of the survey, accompanied by a verbal explanation. Return of completed survey responses was deemed informed consent. Hard copies of survey responses were kept securely and destroyed once data was in digital form. Electronic data is kept on a secure, password-protected server at the researcher's university.

The authors used ChatGPT and Claude as a critical friend to enhance the readability and structure of the final paper, noting the authors wrote the first full draft without AI.

## **3. RESULTS**

### **3.1 Demographics**

The demographics of the sample population were analysed across various categories (see table 1). The demographic characteristics of the participants in the study are presented as follows. The sample consisted of 274 participants, with 62 identifying as male (22.63%) and 212 as female (77.37%). Participants were distributed across various age groups, with the majority falling within the 25-30 age range (33.21%), followed by 31-35 (28.10%), 36-40 (21.17%), 41-45 (12.41%), and those older than 45 years (5.11%). Participants held diverse qualifications, including Bachelor of Arts (24.45%), Bachelor of Science (21.90%), Master of Arts (10.95%), Master of Science (13.50%), Master of Philosophy (11.31%), and Master of Sciences (17.88%). In terms of professional qualifications, the majority of participants held Bachelor of Education degrees (36.50%), followed by Master of Education (32.12%), while 31.39% indicated other qualifications. Teaching experience of participants was measured by reported years of service, with 0-5 years (26.28%) and 6-10 years (26.64%) of experience, followed by 11-15 years (11.31%), 16-20 years (16.42%), 21-25 years (10.58%), and 26 years or more (8.76%).

**Table 1. Demographic Characteristics**

		Frequency	Percent
Gender	Male	62	22.63
	Female	212	77.37
Age	25-30	91	33.21
	31-35	77	28.10
	36-40	58	21.17
	41-45	34	12.41
	Greater than 45 Years	14	5.11
Academic	Bachelor of Arts	67	24.45
	Bachelor of science	60	21.90
	Master of Arts	30	10.95
	Master of Science	37	13.50
	Master of Philosophy	31	11.31
	Master of sciences	49	17.88
Professional Qualification	B.Ed	100	36.50
	M.Ed	88	32.12
	Others	86	31.39
Experience	0-5 years	72	26.28
	6-10	73	26.64
	11-15	31	11.31
	16-20	45	16.42
	21-25	29	10.58
	26 years -above	24	8.76
<b>Total</b>		<b>274</b>	<b>100</b>

### 3.2 Confirmatory Factor Analysis

The assessment of the measurement model's goodness of fit involved evaluating construct composite reliability, convergent and discriminant validity (Hsu & Lin, 2008; Lim, 2015). Construct reliability was gauged using composite reliability (Fornell & Larcker, 1981), with a recommended threshold value exceeding .70 (Liu & Wang, 2016).

All constructs exhibited reliability ranging from .78 to .95, surpassing the prescribed threshold (refer to Table 2). Cronbach's Alpha for each construct exceeded .70 (Hair et al., 2014). Convergent validity was assessed through average variance extracted (AVE) and factor loadings (Fornell & Larcker, 1981). An AVE greater than .50 and factor loadings exceeding .60 are indicative of satisfactory convergent validity (Hair, Ringle, & Sarstedt, 2011). All constructs demonstrated AVEs ranging from .57 to .69 (> .50), while item loadings ranged

from .70 to .85 (>.60), affirming no issues with convergent validity. Furthermore, rho\_c values exceeded the threshold of .70 (ranging from .87 to .95), indicating sound reliability. Variance inflation factors (VIF) revealed no evidence of multicollinearity among the items.

**Table 2. Factor Loadings, CR, AVE and Sqr. AVE**

	<b>Outer loadings</b>	<b>Cronbach's alpha</b>	<b>Composite reliability (rho_a)</b>	<b>Composite reliability (rho_c)</b>	<b>Average variance extracted (AVE)</b>	<b>VIF</b>
WL1	.833	.78	.78	.87	.69	1.528
WL2	.850					1.666
WL3	.807					1.616
SL1	.700	.81	.83	.87	.57	1.680
SL2	.790					1.619
SL3	.720					1.433
SL4	.776					1.845
SL5	.773					1.546
EE1	.816	.81	.84	.87	.64	1.855
EE2	.743					1.552
EE3	.834					1.601
EE4	.793					1.704
TJP1	.793	.95	.95	.95	.59	2.576
TJP2	.731					2.055
TJP3	.739					1.882
TJP4	.772					2.285
TJP5	.804					2.591
TJP6	.751					2.209
TJP7	.796					2.548
TJP8	.789					2.308
TJP9	.772					2.267
TJP10	.741					2.156
TJP11	.760					2.326
TJP12	.780					2.406
TJP13	.733					2.065
TJP14	.752					2.135

WL= WorkLoad, SL= Supportive leadership, EE= Emotional exhaustion, TJP=Teacher Job Performance

Discriminant validity of the instrument was traditionally evaluated by comparing the square root of average variance extracted (AVE) with the correlation of constructs, as proposed by Fornell and Larcker (1981). However, this method has faced criticism from several researchers (Benitez et al., 2019; Fornell & Larcker, 1981). Henseler, Ringle, and Sarstedt (2015) advocated

for the adoption of the Heterotrait-Monotrait (HTMT) ratio to assess construct discriminant validity. The recommended threshold for HTMT ratios is less than 0.85 (Henseler et al., 2015; Benitez et al., 2019; Ogbeibu et al., 2018). In this study, discriminant validity was corroborated, measured by the Heterotrait-Monotrait (HTMT) ratios of the constructs which ranged from .247 to .573 ( $< .85$ , see Table 3).

**Table 3. Heterotrait-Monotrait (HTMT) ratio**

	1	2	3	4
4. Workload				
5. Supportive leadership	.440			
6. Emotional Exhaustion	.573	.365		
7. Job Performance	.370	.247	.284	

Before proceeding to test the model, model fit was assessed using three parameters: Standardized Root Mean Square Residual (SRMR), Normed Fit Index (NFI), and exact model fit based on bootstrapped statistical inference. SRMR, defined as the difference between observed and model-implied correlation matrices, with values below 0.08 considered indicative of good fit (Hu & Bentler, 1998), was introduced by Henseler et al. (2014) as a PLS-SEM goodness-of-fit measure to prevent model misspecification. The NFI, an incremental fit measure comparing the proposed model's Chi-square value with a meaningful benchmark (Bentler & Bonett, 1980), typically suggests acceptable fit with values above 0.9. Given a saturated model with no free paths, fit values for the saturated model (measurement) were calculated. Results in Table 4 revealed SRMR values for the saturated model of 0.056 ( $< 0.08$ ), indicating good fit. The NFI value of 0.855 although is  $< 0.90$  but falls within an acceptable range.

**Table 4. Model Fit Indices**

	Saturated model	Estimated model
SRMR	.056	.060
d_ ULS	1.105	1.246
d_ G	.357	.360
Chi-square	557.722	560.171
NFI	.855	.854

### 3.4 Descriptive Statistics and Correlation

Descriptive statistics and correlations among workload, supportive leadership, emotional exhaustion (EE), and teachers' job performance are presented in Table 5. Mean scores indicate that participants reported moderate levels of workload ( $M = 3.106$ ,  $SD = 1.073$ ), supportive

leadership ( $M = 3.236$ ,  $SD = .940$ ), emotional exhaustion ( $M = 3.355$ ,  $SD = .973$ ), and teachers' job performance ( $M = 3.408$ ,  $SD = .693$ ).

**Table 5. Descriptive Statistics and Correlations: Fornel and Larcker's (1981) Criteria**

	<b>M</b>	<b>SD</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
1. Workload	3.11	1.07	<b>.83</b>			
2. Supportive Leadership	3.24	.94	-.36***	<b>.753</b>		
3. Emotional Exhaustion	3.36	.97	.48***	-.327***	<b>.797</b>	
4. Teacher Job Performance	3.41	.69	-.33***	.229***	-.269***	<b>.765</b>

Correlation coefficients among the variables reveal several noteworthy patterns. Workload demonstrates a positive correlation with emotional exhaustion ( $r = .83$ ,  $p < .001$ ) and a negative correlation with supportive leadership ( $r = -.357$ ,  $p < 0.001$ ), indicating that higher levels of workload are associated with increased emotional exhaustion and decreased perceptions of supportive leadership. Supportive leadership exhibits a negative correlation with emotional exhaustion ( $r = -.327$ ,  $p < .001$ ), suggesting that higher levels of supportive leadership are associated with lower levels of emotional exhaustion among teachers. Emotional exhaustion demonstrates a negative correlation with teachers' job performance ( $r = -.269$ ,  $p < .001$ ), indicating that higher levels of emotional exhaustion are associated with poorer job performance. Additionally, a positive correlation is observed between workload and teachers' job performance ( $r = .765$ ,  $p < .001$ ), suggesting that higher workload may be associated with better job performance, albeit moderately. These findings provide insights into the relationships among workload, supportive leadership, emotional exhaustion, and teachers' job performance within the context of the study.

The explanatory variables exhibit correlations ranging from weak to moderate, particularly among the independent variables. This observation confirms the absence of multicollinearity concerns among the independent variables. Additionally, the diagonal values represent the square root of Average Variance Extracted (AVE). These square roots of AVE values surpass the correlations between the variables, thus affirming the absence of issues regarding discriminant validity of the instruments.

### 3.5 Full Model Assessment

The full model analysis was performed to assess the relationships and test the hypotheses (Figure 3). In the model workload identified as a job stressor has a positive relationship with emotional exhaustion and has a negative impact on teachers' job performance. Emotional

exhaustion is a mediator creating a negative impact on Teachers Job performance whereas supportive leadership is not moderating the relation between workload and job performance.

The results obtained through Partial Least Squares Structural Equation Modelling (PLS-SEM) are reported in Table 6.

**Table 6. Full Model SEM Regression results**

	$\beta$	SD	T-Stat	$p$	R	Hypothesis
WL -> TJP	-.259	.067	3.840	.000	EE = 0.256	H1 Accepted
WL -> EE	.407	.050	8.198	.000		H2 Accepted
EE -> TJP	-.146	.070	2.071	.038		H3 Accepted
SL * WL -> EE	-.047	.055	.853	.394	TJP = .124	H5 Rejected

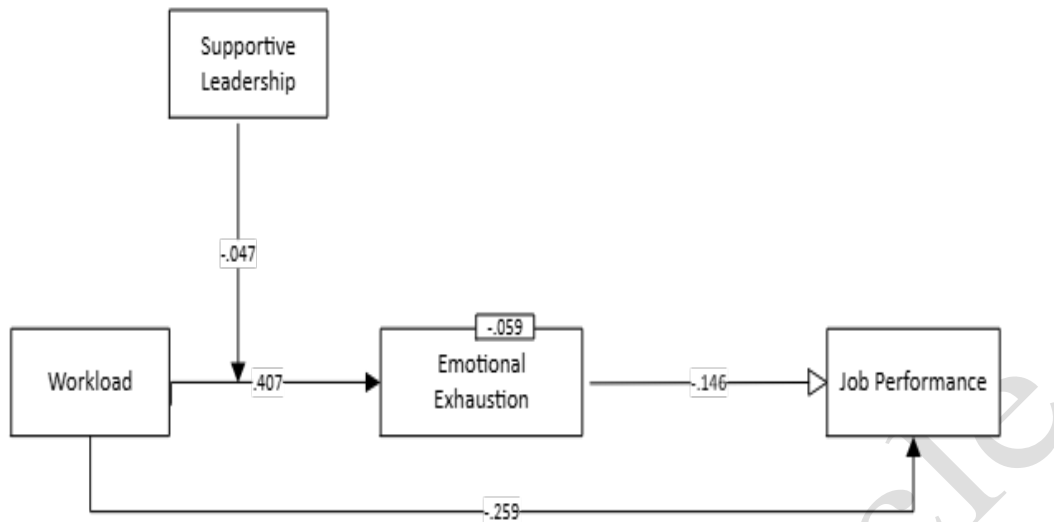
In an examination of the relationships among workload, supportive leadership, emotional exhaustion, and teachers' job performance, several hypotheses were tested.

Firstly, it was found that workload negatively predicts teachers' job performance ( $\beta = -.259, p < .001$ ), thereby supporting H1. Similarly, workload was observed to be positively associated with emotional exhaustion ( $\beta = .407, p = .000$ ), confirming H2. However, the interaction effect between workload and supportive leadership on emotional exhaustion was not significant ( $\beta = -.047, p = .394$ ), thus rejecting H5. Additionally, emotional exhaustion was found to negatively predict teachers' job performance ( $\beta = -.146, p = .038$ ), lending support to H3. These findings suggest that workload and supportive leadership play pivotal roles in influencing teachers' emotional exhaustion and subsequent job performance.

**Table 7. Mediation conditional Indirect effects**

	$\beta$	SD	T-Stat	$p$	Hypothesis
WL → EE → TJP	-.059	.030	2.000	.046	H4 Accepted

Furthermore, the study investigated specific indirect effects through mediation and moderated mediation pathways. Firstly, it was found that the indirect effect of workload on teachers' job performance through emotional exhaustion was statistically significant ( $\beta = -0.059, p = 0.046$ ), supporting H4. These results suggest that while workload influences teachers' job performance through emotional exhaustion, the moderating role of supportive leadership in this relationship was not supported by the data. Moderation Graph (Figure 2) also showed the conditional indirect effects between WL and EE through SL. As the parallel lines confirm no moderating effect of SL for public sector schoolteachers.



**Figure 2. Supportive leadership - Job Performance model**

## 4. DISCUSSION AND CONCLUSIONS

### 4.1 Summary and Key Findings

This study investigated the relationships between workload, emotional exhaustion, and job performance among public secondary school teachers in Pakistan, and examined whether supportive leadership style moderates these relationships. Drawing on Job-Demands-Resources (JD-R) theory, our findings provide several important insights into teacher workplace stress and performance dynamics.

Our analysis confirmed that workload negatively impacts teachers' job performance and is positively associated with emotional exhaustion. These findings align with established research demonstrating that excessive workload contributes to diminished performance and increased stress among educators (Skaalvik & Skaalvik, 2017). The mediating role of emotional exhaustion between workload and job performance was also supported, indicating that teachers' effectiveness decreases when workload depletes their emotional resources.

Contrary to theoretical expectations based on JD-R theory, our findings revealed that Principals' supportive leadership style neither moderates the relationship between workload and emotional exhaustion nor significantly influences teachers' job performance. This unexpected finding challenges assumptions about the universal effectiveness of supportive leadership as a buffer against workplace stressors, particularly in resource-constrained educational settings like Pakistan's public secondary schools.

In this section we discuss the findings in relation to the research objectives. We look at the relationship between workload and job performance, the mediating role of emotional exhaustion, and the moderating effect of supportive leadership on these relationships using the supportive leadership - job performance model we developed.

## **4.2 Workload and Teacher Performance: the stress pathway**

The Pakistani educational system faces significant challenges regarding teacher workload, which negatively impacts performance through excessive responsibilities and resulting stress. Additional duties beyond classroom teaching—such as administrative tasks and supervision of extracurricular activities—contribute to emotional exhaustion among educators. These burdens adversely affect job performance by limiting teachers' capacity to focus on essential pedagogical responsibilities, including lesson planning and instructional design, ultimately compromising teaching quality and student learning outcomes.

Furthermore, heavy workloads diminish teachers' motivation and energy reserves necessary for implementing innovative teaching methods and contemporary pedagogical approaches in the classroom. The depletion of these resources fundamentally constrains instructional effectiveness.

The research findings indicate that all participating teachers reported experiencing high workload demands, with statistical analysis confirming a negative correlation between teacher workload and job performance. The data demonstrate that increasing workload progressively undermines performance effectiveness—a finding consistent with research by Skaalvik and Skaalvik (2017).

## **4.3 The Mediating Role of Emotional Exhaustion**

This research demonstrates a positive association between teacher workload and emotional exhaustion. Teachers experiencing excessive duties become mentally and physically depleted, aligning with JD-R theory, which posits that high job demands (e.g., time pressure, administrative tasks, large class sizes) diminish teacher wellbeing and induce emotional exhaustion. Without adequate support, teachers facing heavy workloads experience emotional depletion that adversely affects their wellbeing, motivation, and job satisfaction. Prolonged emotional exhaustion reduces teaching effectiveness and educational quality, a phenomenon observed across diverse cultural contexts where school-level teachers report significant stress leading to burnout (Bakker & Schaufeli, 2006). Multiple studies identify workload as a primary factor contributing to emotional exhaustion (Skaalvik & Skaalvik, 2009, 2015, 2011a).

Emotional exhaustion negatively impacts teacher job performance. In contemporary educational environments, teachers contend with elevated stress levels resulting from increasing workloads, student assessment responsibilities, administrative duties, and lesson planning. This exhaustion diminishes instructional delivery quality, innovation capacity, enthusiasm, and job satisfaction. Classroom effectiveness deteriorates when emotionally exhausted teachers experience reduced motivation. This negative relationship intensifies with larger student populations and insufficient institutional support. Without professional development opportunities and mental health resources to manage workload, teachers' performance capabilities and educational outcomes suffer. Maintaining high educational standards requires prioritizing teacher mental health. This research is grounded in JD-R theory



and supported by empirical studies demonstrating the adverse effects of emotional exhaustion on performance (Leiter et al., 1998; Wright & Cropanzano, 1998).

The findings identify emotional exhaustion as a significant mediator between workload and job performance. Work overload increases emotional depletion, reducing teachers' effectiveness. According to JD-R theory, excessive job demands exhaust individuals, ultimately leading to burnout. Emotionally drained teachers struggle to manage classroom activities, deliver lessons effectively, and provide adequate student support, resulting in diminished job performance and educational quality.

#### **4.4 Systemic Challenges in Pakistani Education**

The results align with growing recognition that teaching, once considered a highly rewarding profession, has transformed into an occupation characterized by severe stress and exhaustion due to challenging job demands (Neves de Jesus & Lens, 2005; Skaalvik & Skaalvik, 2015). Teachers' performance encompasses multiple indicators including classroom organization, teaching planning, ensuring a disciplinary environment, evaluation monitoring, and leadership in teaching (Atsebeha, 2016; Saleem et al., 2020). However, these performance areas are compromised when teachers experience excessive workload and subsequent emotional exhaustion.

#### **4.5 The Limited Impact of Supportive Leadership: contextual constraints**

These findings suggest that in contexts characterized by systemic challenges—including inadequate funding, infrastructure deficiencies, overcrowded classrooms, and limited professional support—leadership style alone may be insufficient to mitigate the negative effects of high workload on teacher wellbeing and performance. The systemic nature of these challenges may overwhelm the potential benefits of supportive leadership, pointing to the need for more comprehensive interventions that address the motivational factors that impact teacher performance, including job commitment, efficacy, and work engagement (Johari et al., 2018; Radic et al., 2020).

The pressures faced by teachers in public, and to a lesser extent, private sector schools, such as overcrowded classrooms, lack of resources, and bureaucratic challenges, amplify stress and emotional exhaustion. The effects (emotional and physical strain) of workload and stress on teacher performance are well-documented and directly linked to student outcomes, supporting a case for addressing these issues. Broader, systemic, educational issues such as gender disparities and regional inequities in access to education contribute to challenges in the profession. Limited support systems, such as a general lack of professional development opportunities and support for teachers in public sector schools, point to a need for effective interventions to ensure teacher wellbeing and performance.

Teachers' effectiveness/performance stems from a complex interplay of factors, including their qualifications, experience, training, and motivation, as well as the environment in which they

work. In today's evolving educational landscape, their role has become increasingly demanding, requiring them to move beyond traditional rote learning towards more interactive and engaging teaching methods. Despite facing considerable challenges such as inadequate funding, infrastructure deficiencies, and resource shortages, particularly in public sector institutions, teachers remain crucial agents of change who can significantly influence student outcomes through resourcefulness, innovation, and professional commitment.

Our study contributes to understanding the limitations of leadership-focused approaches to improving teacher performance in challenging educational environments. In the global competition where a country's advancement is reflected in its education quality (Mulang, 2021), effective interventions must address structural and systemic issues rather than focusing solely on leadership style. Policy initiatives aimed at reducing teacher workload, providing adequate resources, and creating supportive work environments may yield more substantial improvements in teacher wellbeing and performance than leadership development alone.

#### **4.6 Practical Implications for Educational Policy and Practice**

Drawing from our research findings, we offer three feasible recommendations for Pakistan's education system that acknowledge resource constraints while addressing critical teacher workload and performance challenges:

1. **Teacher Workload Redistribution:** Implement a no-cost policy reform that redistributes administrative tasks away from teachers. School administrators should conduct a systematic review of teacher responsibilities, identifying non-teaching duties that could be reassigned to administrative staff or consolidated among fewer teachers with reduced teaching hours. This structural reorganization requires minimal financial investment while directly addressing the workload issues that our study found significantly impact teacher performance and emotional exhaustion.
2. **Peer Support Networks:** Establish school-based professional learning communities where teachers can share effective practices, develop collaborative solutions to common challenges, and provide emotional support to counteract exhaustion. These networks require no additional funding but create valuable informal resources that, according to JD-R theory, may buffer against workplace stressors more effectively than formal leadership interventions alone. Schools could allocate existing meeting time for these activities rather than creating additional time demands.
3. **Targeted Resource Allocation:** Rather than broad systemic changes requiring substantial funding, focus limited resources on specific high-impact interventions. For example, designate one preparation period per week exclusively for teacher planning and recovery, protect this time from additional duties, and recognize its importance in sustaining teacher performance. This targeted approach acknowledges resource limitations while addressing the critical finding that workload directly impacts emotional exhaustion and subsequent job performance.

#### **4.7 Limitations and Future Research Directions**

This study has several methodological limitations that should be considered when interpreting the findings. The research employed a convenience sampling technique to recruit participants from geographically proximate public secondary schools in Rawalpindi, Pakistan, which limits the generalizability of findings to other regions and educational contexts. The reliance on a pen-and-paper survey with self-reported measures introduces potential for common method bias and social desirability effects, particularly as teachers evaluated both their own performance and their perceptions of principals' leadership styles. Additionally, the cross-sectional design prevents causal inferences regarding the relationships between workload, emotional exhaustion, and job performance.

The paper reports on data from surveys completed by public sector secondary school teachers. Survey data collected from private secondary school teachers and interview data from school principals has not yet been analyzed and is expected to provide significant insights.

Future research should address these limitations by employing longitudinal designs, incorporating objective performance measures, gathering data from multiple sources including Principals' self-assessments of their leadership approaches, and expanding the sampling frame to include diverse geographical and institutional contexts across Pakistan's educational landscape. Additionally, research should explore alternative job resources that might better buffer against workplace stressors in resource-constrained educational settings, compare findings between public and private educational institutions, and investigate the perspectives of school principals regarding their leadership approaches and constraints.

Researchers should also identify other crucial factors which buffer the negative impact of emotional exhaustion and improve teachers' job performance. This direction aligns with JD-R theory (Bakker & Demerouti, 2003) and would be particularly valuable for secondary school teachers working in circumstances that require additional efforts, which increase emotional exhaustion and negatively impact job performance (Ali et al., 2020).

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