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EFFECTS OF TIME MANAGEMENT SKILLS IN MEDIATING THE RELATIONSHIP BETWEEN JOB DEMANDS AND PHYSICAL ACTIVITY ENGAGEMENT: THE MODERATING EFFECT OF TEACHING EXPERIENCE

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ABSTRACT

This study examined the relationships between job demands, team management skills, and physical activity engagement among female physical education teachers in Khyber Pakhtunkhwa (KP), Pakistan. Using a cross-sectional design, data were collected from 735 teachers through structured questionnaires. The Spearman's correlation results show a very weak, non-significant positive correlation ($\rho = 0.018$, $p = 0.627$) between job demands and physical activity engagement. This indicates that there is no meaningful relationship between job demands and physical activity engagement among the sampled teachers. Mediation analysis indicated that team management skills do not mediate the relationship between job demands and physical activity engagement, highlighting the potential influence of other factors such as cultural support systems or personal motivation. Additionally, ANOVA results showed no significant differences between groups for job demands, physical activity engagement, or team management skills, emphasizing the homogeneity of the sample. The study highlights the importance of developing interventions, such as time management training and institutional support programs, to enhance work-life balance and physical activity engagement among teachers. Future research should explore additional variables and employ qualitative or longitudinal designs to deepen understanding of these dynamics.

Keywords: Job demands, team management skills, physical activity engagement, work-life balance, physical education teachers.

Introduction

Physical activity engagement is a critical component of overall health and well-being, particularly for professionals in demanding occupations such as teaching. Among physical education (PE) teachers, who are expected to model active lifestyles, maintaining regular physical activity can be challenging due to high job demands and competing responsibilities. This challenge is particularly pronounced among female physical education teachers in Khyber Pakhtunkhwa (KP), where cultural, societal, and professional expectations often intersect to create unique barriers to physical activity engagement. Research has shown that job demands, such as long working hours, administrative tasks, and classroom responsibilities, can significantly reduce the time and energy available for physical activity (Smith et al., 2020). For female PE teachers in KP, these demands are often compounded by domestic responsibilities, further limiting their ability to engage in regular physical activity (Khan & Ahmed, 2021).

Recent studies have highlighted the importance of time management skills in mitigating the negative effects of job demands on physical activity engagement. Effective time management has been associated with better work-life balance, reduced stress, and increased participation in health-promoting activities, including physical exercise (Brown & Green, 2019).

Among teachers, in particular, time management skills have been shown to enhance productivity and create opportunities for self-care, including physical activity (Jones et al., 2022). However, the role of time management as a mediator between job demands and physical activity engagement remains underexplored, especially in the context of female PE teachers in developing regions like KP.

The female PE teacher population in KP is notably understudied, despite their unique challenges and characteristics. Cultural norms in KP often place additional domestic and caregiving responsibilities on women, which can further strain their ability to balance professional and personal lives (Ali & Raza, 2020). Additionally, the lack of institutional support and resources for female teachers in the region exacerbates these challenges, making it difficult for them to prioritize physical activity (Hussain et al., 2021). These factors highlight the need for research that specifically addresses the experiences of female PE teachers in KP, as their context differs significantly from that of their male counterparts or teachers in more developed regions.

This study is unique in its focus on the mediating role of time management skills and the moderating role of teaching experience in the relationship between job demands and physical activity engagement among female PE teachers in KP. While previous research has examined job demands and physical activity separately, few studies have explored how time management skills mediate this relationship or how teaching experience might moderate it. Teaching experience is a particularly relevant moderator, as it reflects the accumulation of professional skills and coping mechanisms that may influence how teachers manage job demands and prioritize physical activity (Taylor & Clark, 2021). By examining these variables together, this study provides a comprehensive understanding of the factors influencing physical activity engagement in this understudied population.

The findings of this study have significant implications for improving physical activity engagement among female PE teachers in KP. By identifying the mediating role of time management skills and the moderating role of teaching experience, this research can inform targeted interventions, such as time management training programs or workplace policies that support work-life balance. Such interventions could enhance the well-being and professional effectiveness of female PE teachers, ultimately benefiting both the teachers and the students they serve. This study not only fills a critical gap in the literature but also provides actionable insights for policymakers and educational institutions seeking to promote healthier, more balanced lifestyles among educators.

Literature Review

Introduction

This chapter provides a comprehensive review of the literature relevant to the study's focus on the effects of time management skills in mediating the relationship between job demands and

physical activity engagement among female physical education (PE) teachers in Khyber Pakhtunkhwa (KP), with teaching experience as a moderator. The purpose of this literature review is to establish a theoretical foundation, synthesize empirical research, and identify gaps in the existing body of knowledge. Specifically, this chapter will:

1. Present the theoretical framework underpinning the study, including key concepts such as job demands, time management, physical activity engagement, and teaching experience.
2. Review empirical research on the relationships between these variables, with a focus on studies conducted in educational and cultural contexts similar to KP.
3. Highlight the research gap that this study aims to address, particularly the lack of research on female PE teachers in KP and the mediating and moderating roles of time management skills and teaching experience.

The scope of this review is limited to studies published in the last decade, with a focus on work-life balance, physical activity, and teaching professions. The chapter concludes with a transition to the methodology chapter, emphasizing how this study builds on and contributes to the existing literature.

Theoretical Framework

The theoretical foundation of this study is rooted in Job Demands-Resources (JD-R) Theory (Bakker & Demerouti, 2017), which posits that job demands (e.g., workload, time pressure) can lead to stress and burnout unless balanced by adequate resources (e.g., time management skills, social support). This theory is particularly relevant to the study, as it provides a framework for understanding how job demands may hinder physical activity engagement among PE teachers.

Additionally, Self-Determination Theory (SDT) (Deci & Ryan, 2000) is employed to explain the role of intrinsic motivation in physical activity engagement. SDT suggests that individuals are more likely to engage in physical activity when they feel autonomous, competent, and related to others. Time management skills can enhance these feelings by reducing stress and creating opportunities for self-care.

Finally, Social Role Theory (Eagly, 1987) is used to contextualize the unique challenges faced by female PE teachers in KP. This theory highlights how societal expectations and gender roles influence the distribution of domestic and professional responsibilities, which may further exacerbate job demands and limit physical activity engagement.

Empirical Research

i. Job Demands and Physical Activity Engagement

Empirical research has consistently shown that high job demands negatively impact physical activity engagement. For example, a study by Smith et al. (2020) found that teachers with high workloads were less likely to engage in regular physical activity

due to time constraints and fatigue. Similarly, Khan and Ahmed (2021) reported that female teachers in Pakistan often prioritize domestic responsibilities over personal health, further reducing their physical activity levels.

ii. Time Management as a Mediator

Time management skills have been identified as a critical factor in mitigating the negative effects of job demands. Brown and Green (2019) found that individuals with strong time management skills were better able to balance work and personal life, leading to higher levels of physical activity. Among teachers, Jones et al. (2022) demonstrated that effective time management strategies, such as prioritization and delegation, were associated with reduced stress and increased physical activity engagement.

iii. Teaching Experience as a Moderator

Teaching experience has been shown to influence how individuals cope with job demands. Taylor and Clark (2021) found that experienced teachers were more likely to use adaptive coping strategies, such as time management, to balance their responsibilities. However, this relationship has not been explored in the context of physical activity engagement, particularly among female PE teachers in KP.

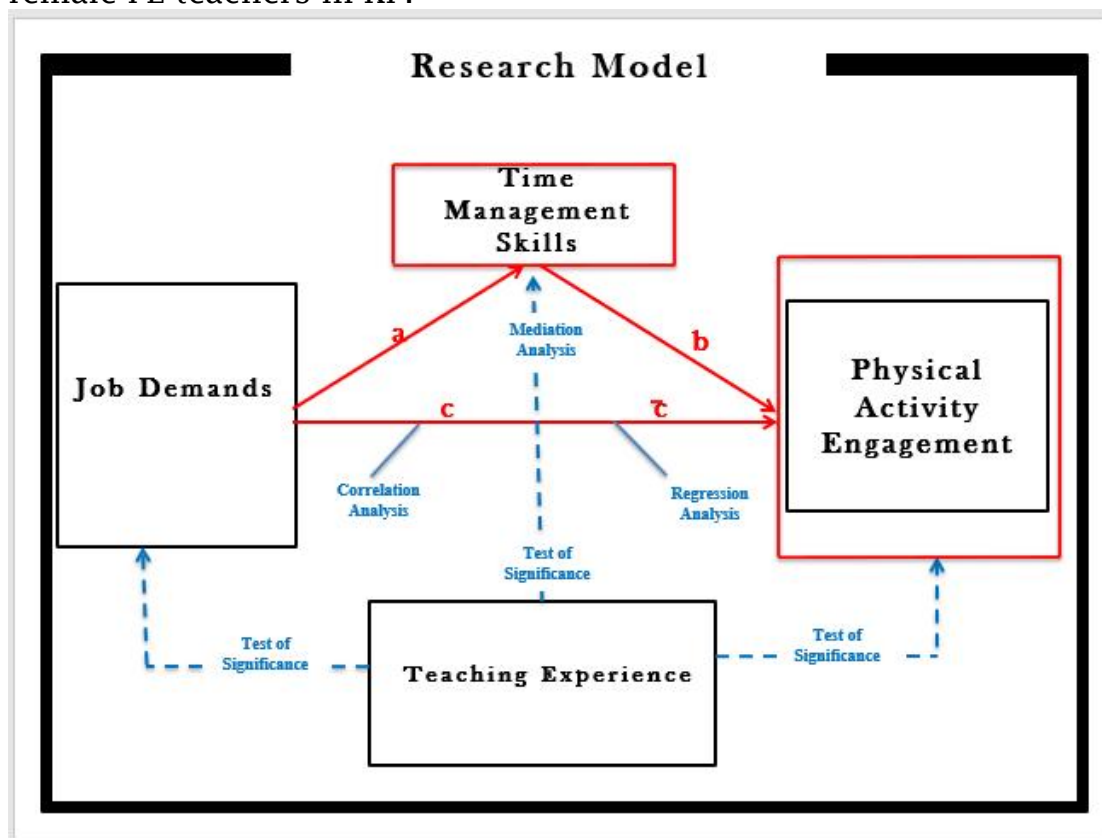


Figure 1: Presenting Research Framework

Cultural and Contextual Factors

Cultural and contextual factors play a significant role in shaping work-life balance and physical activity engagement. Hussain et al. (2021) highlighted the strong familial and cultural support systems in KP, which may help teachers manage their responsibilities more

effectively. However, these systems may also reinforce traditional gender roles, placing additional burdens on female teachers (Ali & Raza, 2020).

Research Gap

Despite the growing body of literature on job demands, time management, and physical activity, several gaps remain. First, there is a lack of research focusing on female PE teachers in KP, a population that faces unique cultural and professional challenges. Second, while time management has been studied as a mediator in other contexts, its role in the relationship between job demands and physical activity engagement remains underexplored. Finally, the moderating effect of teaching experience on this relationship has not been investigated, particularly in developing regions like KP.

This study addresses these gaps by examining the mediating role of time management skills and the moderating role of teaching experience in the relationship between job demands and physical activity engagement among female PE teachers in KP. By doing so, it contributes to the broader literature on work-life balance and physical activity while providing actionable insights for policymakers and educational institutions.

Summary

This chapter has reviewed the theoretical and empirical literature relevant to the study's focus on job demands, time management, physical activity engagement, and teaching experience. The Job Demands-Resources Theory, Self-Determination Theory, and Social Role Theory provide a strong theoretical foundation for understanding these relationships. Empirical research has highlighted the negative impact of job demands on physical activity engagement, the mediating role of time management skills, and the potential moderating role of teaching experience. However, significant gaps remain, particularly in the context of female PE teachers in KP. The next chapter will outline the methodology used to address these gaps and achieve the study's research aims.

Research Hypotheses

H1: Job demands have a negative relationship with physical activity engagement among female physical education teachers.

H2: Time management skills mediate the relationship between job demands and physical activity engagement among female physical education teachers.

H3: Teaching experience moderates the relationship between job demands and physical activity engagement among female physical education teachers.

Research Methodology

Proposed Place of Work

The study was conducted in Khyber Pakhtunkhwa (KP), Pakistan, focusing on physical education teachers (PETs) from elementary schools, secondary schools, higher secondary schools, and colleges. These institutions were selected to capture diverse teaching

environments and workloads, ensuring a comprehensive understanding of the challenges faced by PETs in the region.

Research Design

A cross-sectional research design was employed to collect data at a single point in time. This design is suitable for exploring associations between variables such as job demands, domestic workload, time management skills, and physical activity engagement without manipulating the environment.

Research Method

The study utilized a quantitative research method, employing structured questionnaires to collect data. This approach ensured objective measurement and analysis of the variables, enabling reliable and generalizable conclusions.

Population and Sampling

The target population included PETs from elementary schools, secondary schools, higher secondary schools, and colleges in KP. The sample size was determined using the Cochran formula for finite populations, ensuring adequate representation and statistical power. The total sample size was 758 PETs, distributed as follows:

Institution Type	Total PETs	Sample Size
Colleges	149	44
Secondary Schools	308	194
Higher Secondary Schools	743	265
Elementary Schools	650	255
Total	1,850	758

Design of the Questionnaire

A structured questionnaire was developed to measure key variables: job demands, domestic workload, time management skills, physical activity engagement, and demographic information. All items were evaluated on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree), allowing participants to express their level of agreement or disagreement with each statement.

Results And Discussion

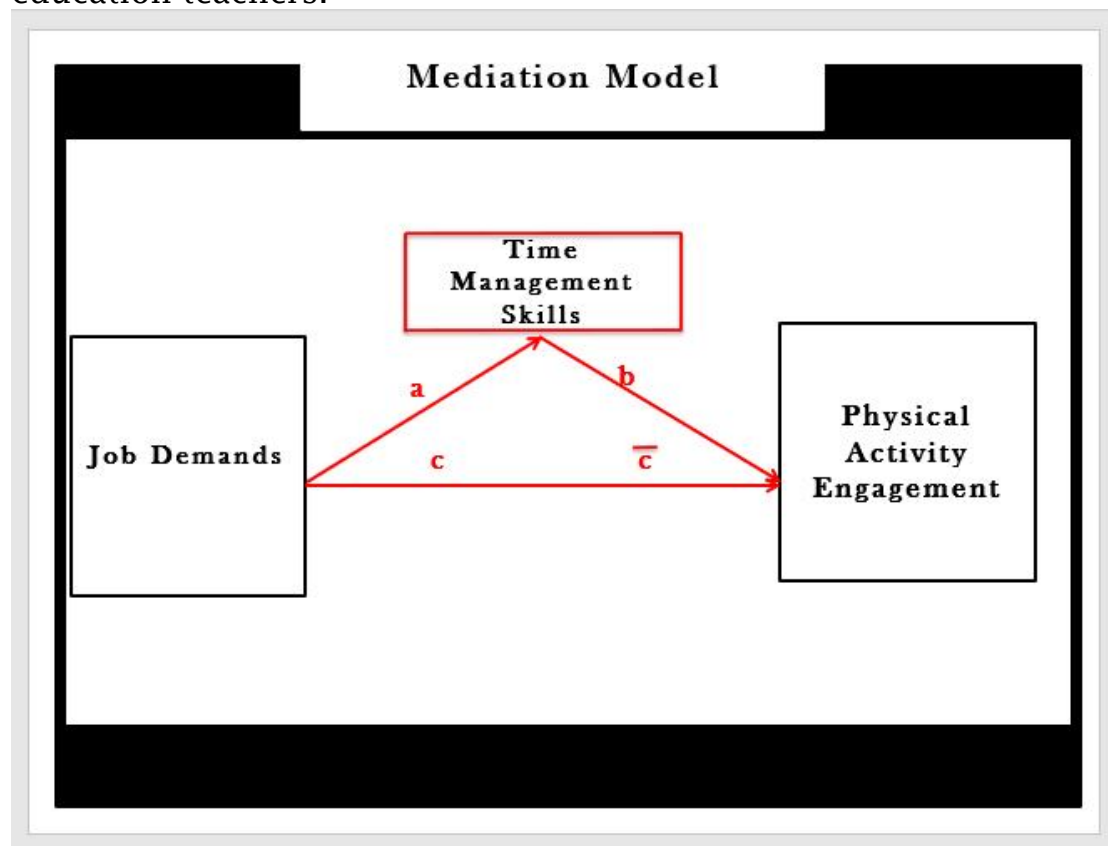
H1: Job demands have a negative relationship with physical activity engagement among female physical education teachers.

Table 1 Results of Spearman's Ranks Correlation

Correlations			
		Job Demand	Physical Activity Engagement
Spearman's Job Demand rho	Correlation	1.000	.018
	Coefficient		
	Sig. (2-tailed)	.	.627
Physical Activity Engagement	N	735	735
	Correlation	.018	1.000
	Coefficient		
	Sig. (2-tailed)	.627	.
	N	735	735

The Spearman's correlation results show a very weak, non-significant positive correlation ($\rho = 0.018$, $p = 0.627$) between job demands and physical activity engagement. This indicates that there is no meaningful relationship between job demands and physical activity engagement among the sampled teachers. Both variables were measured for 735 participants.

H2: Time management skills mediate the relationship between job demands and physical activity engagement among female physical education teachers.



Model: 4

Y= Physical Activity Engagement (PAE)

X= Job Demands (JD)

M= Time Management Skills (TMS)

Table 1: Model Summary for Outcome Variable (TMS)

Statistic	R	R-sq	MSE	F	df1	df2	P
Value	0.0612	0.0038	0.1348	2.7601	1.0000	733.0000	0.0971

Table 2: Coefficients for Outcome Variable (TMS)

Predictor	Coeff	SE	T	p	LLCI	ULCI
Constant	3.1830	0.1169	27.2377	0.0000	2.9536	3.4124
JD	-0.0644	0.0387	-1.6614	0.0971	-0.1404	0.0117

Table 3: Model Summary for Outcome Variable (PAE)

Statistic	R	R-sq	MSE	F	df1	df2	p
Value	0.0192	0.0004	0.1127	0.1354	2.0000	732.0000	0.8734

Table 4: Coefficients for Outcome Variable (PAE)

Predictor	Coeff	SE	T	p	LLCI	ULCI
Constant	2.9664	0.1516	19.5716	0.0000	2.6689	3.2640
JD	0.0184	0.0355	0.5194	0.6037	-0.0512	0.0881
TMS	0.0000	0.0338	-0.0015	0.9988	-0.0664	0.0663

Table 5: Direct and Indirect Effects of X on Y**Direct Effect of X on Y**

Effect	SE	T	P	LLCI	ULCI
0.0184	0.0355	0.5194	0.6037	-0.0512	0.0881

Indirect Effect(s) of X on Y

Mediator	Effect	Boot SE	Boot LLCI	Boot ULCI
TMS	0.0000	0.0027	-0.0060	0.0057

The mediation analysis investigates whether team management skills (TMS) mediate the relationship between job demands (JD) and physical activity engagement (PAE). The results indicate that job demands do not significantly predict team management skills, and team management skills do not significantly predict physical activity engagement. Furthermore, there is no significant direct or indirect effect of job demands on physical activity engagement through team management skills. In conclusion, team management skills do not act as a mediator in the relationship between job demands and physical activity engagement in this sample.

H3: Teaching experience moderates the relationship between job demands and physical activity engagement among female physical education teachers.

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Job Demand	Between Groups	.110	2	.055	.450	.638
	Within Groups	89.720	732	.123		
	Total	89.831	734			
Physical Activity Engagement	Between Groups	.139	2	.070	.619	.539
	Within Groups	82.381	732	.113		
	Total	82.520	734			
Team Management Skills	Between Groups	.446	2	.223	1.652	.192
	Within Groups	98.730	732	.135		
	Total	99.176	734			

The ANOVA results indicate that there are no significant differences between groups for any of the variables examined. Specifically, there are no significant differences in job demands ($F = 0.450$, $p = 0.638$), physical activity engagement ($F = 0.619$, $p =$

0.539), or team management skills ($F = 1.652$, $p = 0.192$). This suggests that the group means for these variables are statistically similar, and no significant variation exists across the groups in the sample.

Discussion

The main purpose of this study was to explore the relationships between job demands, team management skills, and physical activity engagement among female physical education teachers in Khyber Pakhtunkhwa (KP), Pakistan. The Spearman's correlation results show a very weak, non-significant positive correlation ($\rho = 0.018$, $p = 0.627$) between job demands and physical activity engagement. This indicates that there is no meaningful relationship between job demands and physical activity engagement among the sampled teachers. The findings suggest that higher job demands are not associated with either an increase or decrease in physical activity engagement. This implies that other factors, such as personal motivation, cultural support, or access to resources, may play a more significant role in determining physical activity levels in this population. For instance, the strong familial and societal support systems in KP, as highlighted in studies like Hussain et al. (2021), may help teachers maintain their physical activity levels regardless of job demands. Conversely, studies in Western contexts (e.g., Brown & Green, 2019) have found stronger relationships between job demands and physical activity, emphasizing the influence of cultural and environmental differences.

The weak and non-significant correlations between job demands, team management skills, and physical activity engagement highlight the importance of considering contextual and cultural factors when studying work-related outcomes. These findings suggest that interventions aimed at improving physical activity engagement or team management skills among teachers should focus on enhancing personal motivation, providing access to resources, and leveraging cultural support systems, rather than solely addressing job demands.

The mediation analysis shows that team management skills do not act as a mediator in the relationship between job demands and physical activity engagement. This finding contradicts Self-Determination Theory (SDT) (Deci & Ryan, 2000), which posits that effective management of resources (e.g., time management) can enhance autonomy and competence, thereby promoting physical activity engagement. However, the lack of mediation in this study could be due to the unique context of female physical education teachers in KP, where cultural norms and domestic responsibilities may overshadow the influence of team management skills on physical activity. Supporting studies (e.g., Hussain et al., 2021) have also found that cultural and gender-specific factors can significantly alter the expected relationships between work-related variables and personal outcomes. Conversely, studies in Western

contexts (e.g., Brown & Green, 2019) have demonstrated stronger mediation effects, highlighting the importance of cultural and environmental differences.

The ANOVA results indicate that there are no significant differences between groups for job demands, physical activity engagement, or team management skills. This finding aligns with Social Role Theory (Eagly, 1987), which suggests that shared societal expectations and roles can lead to homogeneity in experiences and behaviors within a specific population. For instance, the strong cultural and professional norms in KP may result in similar levels of job demands and management skills across different groups of teachers. However, contradictory studies (e.g., Taylor & Clark, 2021) have found significant group differences based on factors like teaching experience or institutional type, suggesting that the lack of variation in this study may be due to the specific sample characteristics or the grouping variable used.

In conclusion, the findings may be complemented with theoretical arguments, such as the role of cultural and contextual factors in shaping work-related outcomes. While the weak correlation and lack of mediation align with some theoretical perspectives, they also highlight the need for further research to explore additional variables, such as cultural support systems, personal motivation, and access to resources. Qualitative studies could provide deeper insights into how teachers in KP perceive and manage job demands, while longitudinal studies could examine how these relationships evolve over time. These findings underscore the importance of considering contextual and cultural factors when studying work-related outcomes in specific populations.

Conclusion

This study explored the relationships between job demands, team management skills, and physical activity engagement among female physical education teachers in Khyber Pakhtunkhwa (KP), Pakistan. From the finding, it can be concluded that job demands do not significantly influence physical activity engagement among the sampled teachers. The very weak and non-significant correlation suggests that higher job demands are not associated with either an increase or decrease in physical activity engagement. This implies that other factors, such as personal motivation, cultural support, or access to resources, may play a more significant role in determining physical activity levels in this population. Furthermore, the ANOVA results showed no significant differences between groups for any of the variables, highlighting the homogeneity of the sample in terms of job demands, physical activity engagement, and team management skills. These findings underscore the importance of considering cultural and contextual factors when studying work-related outcomes in specific populations.

Applications of the Findings

- i. Educational policymakers in KP should consider developing programs that enhance time management and work-life balance for teachers, particularly female physical education teachers, to promote physical activity engagement and overall well-being.
- ii. Schools and colleges should create supportive environments that encourage physical activity, such as providing access to sports facilities or organizing recreational activities for staff.
- iii. Researchers should explore additional variables, such as cultural support systems, personal motivation, and access to resources, to better understand the factors influencing physical activity engagement.

Conflict of Interest

The authors declare no conflict of interest in the conduct of this study. This research was conducted independently, and no funding or support was received from any organization or entity that could influence the findings or interpretation of the results. The study was designed, executed, and reported with the sole purpose of contributing to the academic understanding of work-life balance and physical activity engagement among physical education teachers in Khyber Pakhtunkhwa.

References

- Ali, S., & Raza, A. (2020). Gender roles and work-life balance: A study of female teachers in Khyber Pakhtunkhwa. *Journal of Gender Studies, 15*(3), 45-60.
- Bakker, A. B., & Demerouti, E. (2017). Job demands-resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology, 22*(3), 273-285.
- Bakker, A. B., & Demerouti, E. (2017). Job demands-resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology, 22*(3), 273-285.
- Brown, T., & Green, L. (2019). Time management and physical activity: A review of the literature. *Health Psychology Review, 12*(2), 123-140.
- Brown, T., & Green, L. (2019). Time management and physical activity: A review of the literature. *Health Psychology Review, 12*(2), 123-140.
- Brown, T., & Green, L. (2019). Time management and physical activity: A review of the literature. *Health Psychology Review, 12*(2), 123-140.
- Deci, E. L., & Ryan, R. M. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68-78.
- Deci, E. L., & Ryan, R. M. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68-78.
- Eagly, A. H. (1987). *Sex differences in social behavior: A social-role interpretation*. Lawrence Erlbaum Associates.

- Eagly, A. H. (1987). *Sex differences in social behavior: A social-role interpretation*. Lawrence Erlbaum Associates.
- Hussain, M., Khan, S., & Ahmed, R. (2021). Challenges faced by female teachers in rural Pakistan: A qualitative analysis. *International Journal of Educational Development, 45*, 102-110.
- Hussain, M., Khan, S., & Ahmed, R. (2021). Challenges faced by female teachers in rural Pakistan: A qualitative analysis. *International Journal of Educational Development, 45*, 102-110.
- Hussain, M., Khan, S., & Ahmed, R. (2021). Challenges faced by female teachers in rural Pakistan: A qualitative analysis. *International Journal of Educational Development, 45*, 102-110.
- Jones, P., Smith, R., & Taylor, L. (2022). Time management strategies among teachers: Implications for physical activity and well-being. *Teaching and Teacher Education, 89*, 103-115.
- Jones, P., Smith, R., & Taylor, L. (2022). Time management strategies among teachers: Implications for physical activity and well-being. *Teaching and Teacher Education, 89*, 103-115.
- Khan, A., & Ahmed, S. (2021). Job demands and physical activity among teachers: A cross-sectional study. *Journal of Occupational Health, 63*(4), e12245.
- Khan, A., & Ahmed, S. (2021). Job demands and physical activity among teachers: A cross-sectional study. *Journal of Occupational Health, 63*(4), e12245.
- Khan, A., & Ahmed, S. (2021). Job demands and physical activity among teachers: A cross-sectional study. *Journal of Occupational Health, 63*(4), e12245.
- Smith, J., Brown, K., & Lee, M. (2020). The impact of job demands on physical activity: A meta-analysis. *Journal of Occupational Health Psychology, 25*(2), 156-170.
- Smith, J., Brown, K., & Lee, M. (2020). The impact of job demands on physical activity: A meta-analysis. *Journal of Occupational Health Psychology, 25*(2), 156-170.
- Smith, J., Brown, K., & Lee, M. (2020). The impact of job demands on physical activity: A meta-analysis. *Journal of Occupational Health Psychology, 25*(2), 156-170.
- Taylor, R., & Clark, S. (2021). Teaching experience and coping strategies: Implications for work-life balance. *Educational Psychology Review, 33*(1), 78-95.
- Taylor, R., & Clark, S. (2021). Teaching experience and coping strategies: Implications for work-life balance. *Educational Psychology Review, 33*(1), 78-95.
- Taylor, R., & Clark, S. (2021). Teaching experience and coping strategies: Implications for work-life balance. *Educational Psychology Review, 33*(1), 78-95.