



To study the Influence and relationship between Vigilance, Workload and Burnout among Working Professionals

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Abstract: This study examines the impact and connection between working professionals' vigilance, workload, and burnout. Employee burnout is frequently the result of prolonged concentration, high cognitive demands, and psychological stress in today's dynamic work situations. The purpose of this study was to investigate the relationship between workload and burnout and how attentiveness predicts these outcomes. Purposive sampling was used to identify 201 working professionals between the ages of 21 and 60 to participate in the study. Data were gathered using standardized questionnaires including, the Maslach Burnout Inventory, the Cognitive Failures Questionnaire, and the Demand-Control-Support Questionnaire as part of a correlational study design. Descriptive statistics, regression analysis, and Pearson correlation were among the statistical analyses carried out with SPSS. The results showed that, albeit with small effect sizes, attentiveness significantly predicts both workload and burnout. Vigilance and workload showed a slight negative link, although vigilance and burnout showed a slight positive correlation. It's interesting to note that there was little correlation between workload and burnout, refuting the conventional wisdom that says a larger workload causes burnout. According to the findings, increased alertness may lessen perceived strain, but it may also increase mental tiredness and burnout. In order to reduce the danger of burnout, these findings underline the necessity of balanced attentional demands as well as the significance of organizational techniques like work rotation, relaxation periods, and mental health assistance. This study contributes to the expanding corpus of research on cognitive demands and workplace mental health in

professional contexts.

Keywords: *Vigilance, workload, burnout, working professionals, cognitive demands, occupational stress, correlational study, Cognitive Failures Questionnaire, Demand-Control-Support Questionnaire, and Maslach Burnout Inventory*

1. Introduction

Professionals are increasingly exposed to hard workloads, long workdays, and high levels of emotional and cognitive stress in today's fast-paced and fiercely competitive work environments. These elements play a major role in job exhaustion, decreased productivity, and above all psychological burnouts. According to Maslach and Jackson, burnout is a “psychological syndrome that manifests as a protracted reaction to ongoing interpersonal pressures at work and is typified by depersonalization, diminished personal accomplishment, and emotional tiredness”.

Workload, both in terms of actual and perceived intensity, is one of the primary factors linked to burnout. In addition to depleting physical energy, an excessive workload also has an impact on job satisfaction and mental health. Poor decision-making, lower work performance, and more employee turnover have all been related to heavy workloads.

Conversely, vigilance is the capacity to maintain focus and alertness for extended periods of time, especially during intellectually demanding or repetitive tasks. Vigilance is essential for sustaining performance and reducing errors in many professional tasks, particularly those that call for high levels of focus, like management, IT, healthcare, and education. However, sustained attention to detail, especially when dealing with a heavy workload, can result in cognitive exhaustion and ultimately burnout.

Few studies have examined the relationships between alertness, workload, and burnout among working professionals, despite the notions' acknowledged individual significance. It is crucial to comprehend this relationship, particularly in the field of occupational health psychology, where improving worker productivity and well-being is becoming more and more important.

Therefore, by investigating the impact and connection between alertness, workload, and burnout among working professionals, this study aims to close this gap. It is anticipated that the results will add to the expanding corpus of research on workplace mental health and could help companies create better task management plans, promote attentional control, and avoid burnout by implementing prompt treatments.

2. Review of literature

Avola et al. (2025) studied the features, efficacy, and contents of interventions intended to improve teacher well-being and lessen burnout. A total of 46 studies with 7,369 participants from 15 different countries were reviewed. There were 28 quantitative studies, 4 qualitative studies, and 14 mixed-methods studies in all. Although several of the interventions incorporated group activities, their main goal was to improve the well-being of the individual. The findings showed that professional development, mindfulness and meditation, physical exercise, therapy-based therapies, mixed-activity interventions, and gratitude interventions all had a good effect on teachers' Well-being.

Bernard et al. (2025) examined the impact of workload, employee resilience, and perceived organizational support (POS) on burnout in the consulting industry, which is known for its high levels of pressure and lengthy workdays. A sample of 169 management consultants provided the data. The results show that professional inefficacy, cynicism, and fatigue are all positively impacted by POS. For all three aspects, employee resilience acts as a partly mediating factor in this effect. The cynical feature of burnout has shown a substantial moderating effect between workload and POS, indicating that consultants with high workloads (over 60 working hours per week) can benefit most from high POS.

Koporcic et al. (2025) the objective of the research was to enhance the existing theoretical comprehension of burnout in a corporate setting. Data is gathered from 27 businesses to examine how various work-related behaviors affect burnout. The findings show that successful organizational treatments are frequently low-cost, and that an integrative, continuously assessed approach to burnout holds the key to advancement.

Satriady et al. (2025) examined how civil servants at the Investment and Integrated One-Stop Service Office of East Kalimantan Province's workload affected their levels of burnout. Using saturation sampling, which involves surveying the entire population, the study comprised 37 civil servants. Burnout is strongly influenced by workload, which accounts for 64.1% of the variation in burnout levels. The danger of burnout can be considerably decreased by using Standard Operating Procedures (SOPs) in conjunction with effective workload management. The study emphasizes how crucial human resource management techniques are for reducing burnout via improved task management.

Ainun (2024) study was to evaluate and examine how workload affected nurses'

performance and burnout at Jeneponto's Lanto Daeng Pasewang General Hospital. 109 nurses participated in the study. Burnout among nurses is positively and statistically significantly correlated with workload. Additionally, nurses' performance is favorably and dramatically impacted by their workload. Performance and burnout are positively correlated; however, this link is not statistically significant. The relationship between workload and performance is not mediated by burnout.

3. Methodology

3.1 Problem

To study the influence and relationship between vigilance, workload, and burnout among working professionals

3.2 Research Objectives

- a) To examine the influence of vigilance on workload among working professionals.
- b) To investigate the influence of vigilance on burnout among working professionals.
- c) To examine the relationship between vigilance, workload, and burnout among working professionals.

3.3 Hypotheses

1. Vigilance will significantly predict workload among working professionals.
2. Vigilance will significantly predict burnout among working professionals.
3. Vigilance, workload, and burnout will have strong positive relationship among working professionals.

3.4 Research Design

To investigate the connection and influence of alertness, workload, and burnout among working professionals, a correlational research methodology will be used. Since the main goal of the study was to ascertain the strength and direction of the relationship between these psychological variables without changing them, this design was judged appropriate.

3.5 Sample

- a) *Sample Size*: A total of 201 participants aged between 21-60 years will be recruited.
- b) *Sampling Method*: Participants will be selected through purposive sampling, a non probability sampling technique, to select working professionals across various sectors (e.g., corporate, education, healthcare, and IT).

3.6 Measures

3.6.1 Cognitive Failures Questionnaire (CFQ): A 25-item self-report questionnaire that evaluates an individual's ordinary cognitive lapses, the Cognitive Failures Questionnaire (CFQ) was created by Broadbent et al. (1982) to measure alertness and sustained attention. Perceptual, memory, and motor function issues are all part of these slips, which might point to less attentiveness and more mental strain. On a 5-point Likert scale, from 0 (never) to 4 (very often), the CFQ asks 25 questions. Higher scores indicate more cognitive failures and less alertness; the overall score might be anywhere from zero to one hundred. The CFQ has proven to be quite reliable, with Cronbach's alpha values ranging from 0.80 to 0.91, showing great internal consistency.

3.6.2 Demand-Control-Support Questionnaire (DCSQ, 17 ITEMS):

Workload, job demands, choice flexibility (control), and workplace social support are all measured by the Demand-Control-Support Questionnaire (DCSQ), which is based on Karasek's Job Demand-Control (JDC) model. This concept proposes that when there are high demands and little control over the situation, it leads to job strain. Most surveys use a Likert scale, where 1 indicates a strong disapproval and 4 indicates a strong agreement, to collect responses. The three dimensions of the DCSQ are as follows:

- a) Job Demands (e.g., workload intensity and work pressure)
- b) Job Control (e.g., autonomy in decision-making)
- c) Social Support (e.g., support from colleagues and supervisors)

The DCSQ is reliable, with Cronbach's alpha values between 0.70 and 0.85.

3.6.3 Maslach Burnout Inventory (MBI)

The most popular instrument for evaluating burnout in the workplace is the Maslach Burnout Inventory (MBI), which was created by Maslach and Jackson (1981). Exhaustion on the job may take a toll on a person's mental, emotional, and physical health. From 0 (never) to 6 (daily), a 7-point Likert scale is used to score each item. The MBI is composed of three subscales and fifteen items in total:

- a) Exhaustion (EX): Measures feelings of being emotionally overextended and exhausted by one's work.
- b) Cynicism (CY): Assesses an indifferent or distant attitude towards one's job.
- c) Professional Efficacy (PE): Evaluates feelings of competence and successful achievement at work.

A wide range of Cronbach's alpha values (0.75-0.90) attest to the MBI's strong internal consistency.

4. Statistical Analysis

Table 1: *Descriptive statistics of all variables*

	Vigilance	Workload	Burnout
Mean	35.08458	47.20896	42.25373
Standard Deviation	14.81647	7.36859	14.18416
N	201	201	201

Workload, burnout, and vigilance are three research variables that may be better understood with the use of descriptive statistics. With an average vigilance score of 35.08, the subjects showed a moderate degree of awareness and focus. Respondents' levels of vigilance appear to vary widely, with a standard deviation of 14.82. With a comparatively low standard deviation of 7.37 and a relatively high mean workload score of 47.21, the majority of participants appear to be dealing with a comparable amount of work. With a standard deviation of 14.18, burnout experiences are very variable, but on average, professionals report a moderate to high degree of weariness and stress (42.25). There is confidence in the trend analysis due to the 201-person sample size for all three variables. Consistently high workloads among professionals may explain why there is a wide range of vigilance and exhaustion levels, according to the findings. The connections between these factors will be further investigated using statistical analysis.

Table 2: *Regression analysis of influence of vigilance on workload among working professionals*

Regression Statistics	
Multiple R	0.18294
R Square	0.033467
Adjusted R Square	0.02861
Standard Error	7.262417
Observations	201

ANOVA

	df	SS	MS	F	Significance F
Regressi	1	363.4266	363.4266	6.890557	0.009338

on					
Residual	199	10495.8	52.7427		
Total	200	10859.22			

H1: *There is a significant influence of vigilance on workload among working professionals.*

The regression analysis examines the influence of vigilance on workload among working professionals. The R Square value of 0.033 indicates that vigilance explains only 3.35% of the variation in workload, suggesting a mild relationship between the two variables. However, the Significance F value of 0.009 is less than the standard significance level of 0.05, indicating that the regression model is statistically significant. The F-statistic of 6.89 further supports the presence of a meaningful effect, even though the explained variance is low.

Based on the significance level, the hypothesis (H1: There is a significant influence of vigilance on workload among working professionals) is accepted. This implies that vigilance has a statistically significant but mild influence on workload.

Table 3: *Regression analysis of influence of vigilance on burnout among working professionals*

Regression Statistics	
Multiple R	0.236528
R Square	0.055945
Adjusted R Square	0.051201
Standard Error	13.81626
Observations	201

ANOVA

	df	SS	MS	F	Significance F
Regression	1	2251.13	2251.13	11.79287	0.000723
Residual	199	37986.93	190.8891		
Total	200	40238.06			

H2: *There is a significant influence of vigilance on burnout among working professionals.*

The regression analysis assesses the influence of vigilance on burnout among working professionals. The R Square value of 0.0559 indicates that vigilance explains 5.59% of the variation in burnout, suggesting a mild but notable relationship between the two variables. The Significance F value of 0.0007 is well below the standard significance threshold of 0.05, confirming that the regression model is statistically significant. Additionally, the F-statistic of 11.79 supports the presence of a meaningful effect.

Based on the significance level, the hypothesis (H2: There is a significant influence of vigilance on burnout among working professionals) is accepted. This indicates that vigilance has a statistically significant but mild influence on burnout, though the effect size remains small.

Table 4: *Pearson Correlation Analysis of relationship between vigilance, workload and burnout among working professionals*

Variable	1	2	3
Vigilance	1.00	-0.18	0.24
Workload	-0.18	1.00	-0.03
Burnout	0.24	-0.03	1.00

****Sig at 0.01**

H3: *There is a significant relationship between vigilance, workload and burnout among working professionals.*

The Pearson correlation analysis examines the relationship between vigilance, workload, and burnout among working professionals. The correlation coefficient between vigilance and workload is -0.1829, indicating a mild negative relationship, meaning that as vigilance increases, workload slightly decreases. The correlation between vigilance and burnout is 0.2365, suggesting a mild positive relationship, implying that higher vigilance is associated with increased burnout.

Meanwhile, the correlation between workload and burnout is -0.033, which is very mild and negative, indicating almost no relationship between these two variables.

Since the correlation values are mild and the relationship between workload and burnout is nearly negligible, the hypothesis (H3: There is a significant but moderate relationship between vigilance, workload, and burnout among working professionals) is partially supported. While vigilance shows a significant association with both workload and burnout, the relationship between

workload and burnout is not strong.

5. Discussion

This study's results shed light on the connection between professionals' levels of alertness, workload, and burnout. The findings show that being vigilant significantly affects workload and burnout, albeit with tiny effect sizes. Furthermore, there is a small positive link between alertness and burnout, but a mild negative correlation between vigilance and workload. Curiously, there is practically no association between workload and burnout, which goes against the prevalent wisdom that more work inevitably leads to burnout.

The existing research on vigilance and human performance provides a framework for making sense of these findings. In many professions, particularly those involving continual observation and interaction between humans and machines, vigilance, or persistent attention, is essential (Warm, 1977, 1984, 1993; Davies & Parasuraman, 1982). This study lends credence to the assumption that alertness is crucial to productivity on the job. But they also bring attention to the psychological cost, as hypervigilant professionals are more prone to burnout. That fits up with what we already know from studies showing that being hyper-focused for lengthy periods of time can lead to stress and mental exhaustion (Ballard, 1996).

Professionals who are always on high alert may find that they have less work to accomplish because they are better able to control their workload, according to the mild negative association between vigilance and workload. This is in line with studies showing that workers' responsibilities have changed from being active controllers to passive observers due to automation and technology (Sheridan, 1970, 1980). Maintaining a high level of alertness is essential in these settings, but doing so comes at the cost of mental fatigue and stress (Hartley et al., 1989; Hancock & Hart, 2002).

Traditional theories that link high workloads to high burnout are challenged by the limited association between the two. This provides more evidence that job management, coping strategies, and the work environment all play a mediating role between workload and burnout. Workers in fields requiring constant attention, such medical diagnostics, air traffic control, and military surveillance, may experience stress and exhaustion regardless of the amount of labour they put in (Weinger & Englund, 1990; Warm & Dember, 1998).

6. Conclusion

Workload, vigilance, and burnout were the three variables that this study looked at in regard to professionals. Workload and burnout were both significantly but mildly affected by alertness, suggesting that alertness is an important workplace factor. Maintaining extended attention can lead to mental and emotional tiredness, even while higher alertness levels were related with lower perceived workload and higher burnout. Interestingly, there was almost no correlation between workload and burnout, suggesting that other variables, such job control, coping strategies, and work environment, may have a more substantial influence on burnout levels.

These findings are in line with previous research that has shown that humans need to be very alert in order to perform well in a variety of professions, especially those that need constant focus, such air traffic control, medical diagnostics, and industrial quality control. In addition to highlighting the importance of scheduled breaks, work rotation, and mental health assistance in preventing burnout, the results highlight the psychological costs of alertness.

The significance of balancing attentional demands with mental health therapies is highlighted by this study, which adds to our understanding of how vigilance influences workload perception and employee well-being. Further investigation into the elements that mediate the connection between workload and burnout might provide light on effective methods for coping with stress at work in the future.

6.1 *Limitations and recommendations*

The current study has a number of limitations even if it offers insightful information about the connection between working professionals' alertness, workload, and burnout. First off, the accuracy of the results may have been impacted by response bias brought about by the use of Google Forms to collect self-reported data. Participants may have overestimated or underestimated their experiences based on personal beliefs or social desirability. Second, because data was gathered at a particular point in time, the cross-sectional form of the study restricts the capacity to deduce causal links among the variables. A more dynamic knowledge of the interactions between burnout, workload, and attentiveness across time might be provided by a longitudinal approach. Thirdly, because different sectors and work types may experience these variables differently, the findings' generalizability is limited by the sample's small size and sector-specificity (201 individuals). Additionally, the study did not investigate any mediating or moderating factors that might affect the association between the primary variables, such as work engagement, coping

strategies, or job autonomy. Lastly, the results may have been distorted by the exclusion of unmeasured external factors such as the work environment, team dynamics, or pressures in the individual's personal life. By using mixed techniques, adding objective measurements, and taking into account a more representative and diverse sample, future research should overcome these constraints.

Based on the study's findings, a number of useful suggestions can be offered to assist organizations in managing working professionals' workload and vigilance demands while also reducing burnout. First, since brief, frequent breaks have been demonstrated to improve cognitive function and lower the risk of burnout, instituting planned breaks and rest times can greatly lessen mental exhaustion and maintain focus. Task rotation and work enrichment techniques, such as giving employees more autonomy and a variety of responsibilities, can also reduce boredom and attentional overload while enhancing motivation. Employees can be further empowered to manage high-vigilance duties more skillfully by receiving training in stress management and coping strategies, such as goal setting, time management, and mindfulness. Emotional tiredness and the strain of constant attentional demands can be lessened by promoting work-life balance through flexible work arrangements and adaptive scheduling. Lastly, a psychologically safe workplace can be established by promoting a supportive work atmosphere through easily accessible mental health resources, frequent wellness check-ins, and candid discussions about stress. When combined, these approaches can increase organizational productivity, lower burnout, and promote employee well-being.

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