ORIGINAL ARTICLE

# Workload, Burnout, Emotional States, and Job Performance of Government Employees: An Exploratory Investigation From The Third Wave of COVID-19

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*Abstract: While studies examining the impact of the COVID-19 on the general population are in abundance, the number of research on its impact on government employees is limited. The present study investigated the levels of workload and the presence of burnout, negative emotional states, and job performance on a sample of government employees in Malaysia during the third wave of the pandemic. Participants (n = 118) answered an online survey with questions about their demographic characteristics, NASA Task Load Index (workload), Copenhagen Burnout Inventory (burnout), Depression, Anxiety, and Stress Scale (negative emotional states), and Job Performance Scale (job performance). Results showed that participants reported high workloads and exhibited high burnout and negative emotional states scores. Regression analyses indicated that workload is a strong predictor of work-related burnout and depression, anxiety, and stress, even after controlling for age. Contrary to the expectations, workload did not correlate or predict job performance. The uncertainty and shift in work together with the increased workload brought about by the pandemic affect government employees' psychological well-being. Future research will benefit from identifying the factors behind the interplay between workload, burnout, emotional states, and other job outcomes, which can then inform the development of specific, theoretically grounded interventions to improve employees' psychological well-being.*

**Keywords: Workload, burnout, emotional states, job performance, government employees, COVID-19**

## 1.0 INTRODUCTION

Countries worldwide have faced multiple waves of COVID-19 infections, starting with the first in early 2020, followed by the second in late August of the same year. In Malaysia, the pandemic has progressed into the third wave in October 2020, which has persisted until now [1]. Nearly two years into the pandemic, many in the workforce are experiencing increased mental workload [2], greater levels of stress [3], high burnout [2][4], and decreased job performance [5][6]; indicating that the pandemic has taken an exhaustive toll on the psychological and emotional health of employees.

Burnout may not be an immediate medical condition, but it has been regarded by the World Health Organization as a syndrome that is characterised by three components: (i) feelings of

exhaustion or energy depletion, (ii) increased mental distancing and feelings of negativity or cynicism towards one's job, and (iii) a reduced ability to do one's work [7]. Recent research extended this characterisation by suggesting that burnout is best conceptualised as the inability and unwillingness to spend effort at work, resulting in cognitive and emotional impairments [8].

At its core, burnout may be caused by work that demands continuous, long-term physical, cognitive, or emotional effort [4]. Systematic reviews by [9], [10], [11], and [12] reported that the causes could be divided into situational and individual factors. In the former, workload, job demands, role demands, personal control at work, resource scarcity, time pressure, relationship demands, and level of social support may come into play. Meanwhile, individual factors may include personality, attitudes, beliefs, and values. Out of all these factors, workload is among the prime concerns highlighted in the literature. Hence, it is not surprising that high workload has been established as one of the leading factors for burnout, psychological distress, and decreased performance at work [13][14].

In general, workload refers to the amount of work that needs to be completed, which typically necessitates an investment in time, energy, and commitment on the part of the doer. It is an aspect that all employees will experience during their working life. Different environments, occupation types, personal attributes, as well as job resources and demands can lead to different workload levels among employees. The Job Demands-Resources theory [15] posits that negative consequences will occur when job demands are high and job resources are low. Job demands here may include a heavy workload or stressful working environment, whereas job resources include physical, social, and organisational factors that could help employees manage job demands. Overload occurs when workload and time pressures exceed employees' abilities and resources to perform their jobs. Therefore, the workload may lead to positive or negative effects depending upon the congruency of job demands and resources and how it is perceived and managed. Consequently, the different understanding and ways of handling workload can lead to different effects for each employee.

The imposed and re-imposed lockdowns or movement restrictions saw the closure of non-essential businesses, banning of public gatherings, and the requirement to work from home. For the latter, work-from-home instructions were given to employees in the public and private sectors. Government employees, in particular, are experiencing a significant shift in their way of work and

work environment. Studies have reported that government employees are clocking more hours beyond the normal work schedule [16], leading to decreased job satisfaction and negative feelings about working in the public sector [17] [18]. Experiences in working during the pandemic period have also made government employees feel burnout [19] [20] and hence, think of quitting their job [17]. Burnout is especially pronounced for employees who feel anxious due to a lack of information about the pandemic and post-pandemic work strategy [21].

Studies have demonstrated that employees are no longer interested in making a positive contribution when they feel burned out from their jobs [10] [13]. Burnout is also associated with psychological consequences such as work-related anxiety and depression, and with physical consequences such as an increased risk of cardiovascular diseases [22] and other chronic diseases like obesity, type 2 diabetes, and musculoskeletal disorders [23]. These findings indicate how important it is to understand and mitigate burnout, particularly in relation to workload. If issues relating to workload and burnout are not fully understood and addressed, government employees' performance, motivation, and psychological well-being may further deteriorate. This scenario could then affect their work, family life, and social relationships.

In light of this background, we aim to investigate the workload of government employees during the third wave of the pandemic and its relationship with burnout, negative emotional states (e.g., depression, anxiety, and stress), and job performance. Conducting this study during the third wave is important because it highlights the tumultuous effects of multiple national lockdowns on government employees' mental health and psychological well-being. Hence, with this study, we hope to offer empirical evidence of workload as an important predictor that could explain burnout, emotional states, and job outcomes.

## 2.0 MATERIALS AND METHOD

A cross-sectional, online survey was administered to government employees recruited by snowball sampling technique through the researchers' contact and network in the sector. To be eligible for the study, participants must be currently employed by a government entity and below the age of 60. The survey was carried out from November 2020 to December 2020 and garnered responses

from 118 participants (Female = 83; Male = 35). The sample's mean age was 41 (*SD* = 10.03), ranging from 19 to 59 years old.

Participants accessed a link through an email, social media post, or text message that would lead to a Google Forms' questionnaire. In the first part of the questionnaire, they indicated their consent to participate in the study. Next, they completed four scales measuring workload, burnout, emotional states, and job performance. The workload was assessed using the NASA Task Load Index (NASA-TLX) [24], which consisted of six items that are answered on a Likert scale from 1 (*Very Low*) to 7 (*Very High*). The score for each item was combined for a total score, with high scores indicating high workload as perceived by the participants. In this study, the scale had acceptable reliability (Cronbach' $\alpha$ = 0.66).

Burnout was measured using the Copenhagen Burnout Inventory (CBI) [25]. The inventory consists of 19 items with three subscales: (i) personal burnout (six items); (ii) work-related burnout (seven items); and (iii) client-related burnout (six items). Participants responded to each item using a five-point Likert scale, i.e., 0 (*Never*), 25 (*Seldom*), 50 (*Sometimes*), 75 (*Often*), and 100 (*Always*). The sub-scale scores were calculated by taking the mean of the items in each scale. Scores can range between 0 and 100, with scores of 50 to 74 are considered moderate, 75–99 are high, and a score of 100 is considered severe burnout. The CBI demonstrated high reliability for all subscales: personal burnout ($\alpha$ = .89), work-related burnout ($\alpha$ = .875), and client-related burnout ($\alpha$= .922).

Emotional states were measured using the Depression, Anxiety, and Stress Scale (DASS-21) [26] that is made up of 21 self-report items, with three subscales and seven items each. Responses were on Likert-type alternatives, ranging from 0 (*Did not apply to me at all*) to 3 (*Applied to me very much or most of the time*). Scores for depression, anxiety and stress were calculated by summing the scores for the respective items, which correspond to ranges of severity (*normal, mild, moderate, severe, extremely severe*) individually. All the three subscales recorded excellent reliability values: depression ($\alpha$ = .964), anxiety ($\alpha$ = .951), and stress ($\alpha$ = .954).

Finally, the Job Performance Scale (JPS) [27] is used to assess perceived job performance. The scale consists of 16 items responded with a four-point Likert scale (*Strongly Disagree, Disagree, Agree,*

*Strongly Agree*). Higher total scores demonstrate higher perceived job performance. This scale also had excellent reliability, with $\alpha$ = .917.

## 3.0 RESULTS

Data were analysed using IBM SPSS version 21. After verifying the dataset for completeness of the responses, descriptive analyses of the demographics data and study measures were performed. Results showed that the majority of participants were Malay (97.5%), with only one Chinese, one Indian, and one Sino-Kadazan responded to the survey. Concerning education level, 69.5% had a bachelor's degree, 19.5% postgraduate studies, 9.3% diploma studies, and 1.7% secondary school studies. Participants were from all 14 states in the country, with most of them being from Kelantan (33.9%), followed by Selangor (21.2%) and Wilayah Persekutuan/Putrajaya (18.6%). Regarding job positions, 44.1% were teachers or lecturers, 17.8% government officers, 11% in health settings (medical officers, surgeon, nurses, psychologist, and counsellor), 10.2% clerical, 9.3% *shariah* officers, 2.5% arm forces, and 5.1% others. The profile of the participants is provided in Table 1.

**Table 1** Participants' demographic profile

| **Characteristics** | ***n*** | **%** | ***M*** | ***SD*** |
|---|---|---|---|---|
| Gender | | | | |
| Male | 35 | 29.7 | | |
| Female | 83 | 70.3 | | |
| Age | | | | |
| 19 - 28 | 13 | 11.0 | 41.27 | 10.03 |
| 29 - 38 | 32 | 27.1 | | |
| 39 - 48 | 37 | 31.4 | | |
| 49 - 58 | 35 | 29.7 | | |
| 59 and above | 1 | .8 | | |
| Ethnicity | | | | |
| Malay | 115 | 97.5 | | |
| Chinese | 1 | .8 | | |
| Indian | 1 | .8 | | |
| Sino-Kadazan | 1 | .8 | | |
| Education background | | | | |
| Secondary school | 2 | 1.7 | | |
| Diploma | 11 | 9.3 | | |

| | | |
|---|---|---|
| Undergraduate degree | 82 | 69.5 |
| Postgraduate degree | 23 | 19.5 |
| Job category | | |
| Teachers, lecturers | 52 | 44.1 |
| Government officers | 21 | 17.8 |
| Medical officers, surgeons, nurses, psychologists, and counsellors | 13 | 11 |
| Clerical | 12 | 10.2 |
| *Shariah* officers | 11 | 9.3 |
| Arm forces | 3 | 2.5 |
| Others | 6 | 5.1 |

Visual inspection of normal P-P Plots and histograms plotting standardised predicted values against standardised residuals of all dependent variables indicated no drastic deviations from normality. Assumption checks for linearity, homoscedasticity, and multicollinearity also showed that all values were within acceptable guidelines recommended by [28]. Descriptive statistics and intercorrelations among the variables are presented in Table 2.

**Table 2** Descriptive statistics and intercorrelations among variables

| | | *M* | *SD* | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Workload | 28.69 | 5.22 | - | .159 | .374** | .212* | .413** | .461** | .466** | .128 |
| 2 | Personal burnout | 45.34 | 19.76 | | - | .753** | .666** | .152 | .129 | .203* | -.224* |
| 3 | Work-related burnout | 38.32 | 20.02 | | | - | .739** | .271** | .267** | .319** | -.285** |
| 4 | Client-related burnout | 42.02 | 20.51 | | | | - | .072 | .050 | .078 | -.216* |
| 5 | Depression | 5.50 | 6.09 | | | | | - | .938** | .914** | -.235* |
| 6 | Anxiety | 5.78 | 5.83 | | | | | | - | .934** | -.215* |
| 7 | Stress | 6.69 | 5.92 | | | | | | | - | -.235* |
| 8 | Job performance | 54.16 | 6.54 | | | | | | | | - |

***. Correlation is significant at the 0.01 level (2-tailed).*

**. Correlation is significant at the 0.05 level (2-tailed).*

The scores for items related to workload denoted that participants experienced high workload ($M$ = 28.69; $SD$ = 5.22) at the time the survey was conducted. The proportion of burnout was highest on personal burnout ($M$ = 45.34; $SD$ = 19.76), second highest on client-related burnout ($M$ = 42.02; $SD$

= 20.51), and lowest on work-related burnout (*M* = 38.32; *SD* = 20.02). On the personal burnout subscale, 40.7% (*n* = 48) of participants reported moderate burnout, 7.6% (*n* = 9) reported high burnout, and 1.7% (*n* = 2) participants reported severe personal burnout. The overall prevalence of participants reporting moderate or high client-related burnout was at 44.1% (*n* = 52). Two (1.7%) participants reported severe client-related burnout. Most participants scored in the normal range on the work-related burnout subscale (*n* = 81; 68.6%). However, 37 (31.4%) participants reported moderate or high work-related burnout. Table 3 summarises these results.

**Table 3** Scores and Cronbach's alphas of the Copenhagen Burnout Inventory (CBI) and Depression, Anxiety, and Stress Scales (DASS-21) of government employees (*n* = 118)

| Measure | *M* | *SD* | *n* (%) | Cronbach's alpha |
|---|---|---|---|---|
| ***Copenhagen Burnout Inventory (CBI)*** | | | | |
| *Personal burnout* | 45.34 | 19.76 | 118 (100%) | *a* = .89 |
| • Normal | | | 59 (50.0) | |
| • Moderate | | | 48 (40.7) | |
| • High | | | 9 (7.6) | |
| • Severe | | | 2 (1.7) | |
| *Work-related burnout* | 38.32 | 20.02 | 118 (100%) | *a* = .875 |
| • Normal | | | 81(68.6) | |
| • Moderate | | | 29 (24.6) | |
| • High | | | 8 (6.8) | |
| *Client-related burnout* | 42.02 | 20.51 | 118 (100%) | *a*= .922 |
| • Normal | | | 64 (54.2) | |
| • Moderate | | | 47 (39.8) | |
| • High | | | 5 (4.2) | |
| • Severe | | | 2 (1.7) | |
| ***Depression, Anxiety, and Stress Scales (DASS-21)*** | | | | |
| *Depression* | 5.50 | 6.09 | 118 (100%) | *a* = .964 |
| • Normal | | | 68 (57.6) | |
| • Mild | | | 10 (8.5) | |
| • Moderate | | | 13 (11.0) | |
| • Severe | | | 6 (5.1) | |
| • Extremely severe | | | 21 (17.8) | |
| *Anxiety* | 5.78 | 5.83 | 118 (100%) | *a* = .951 |
| • Normal | | | 58 (49.2) | |
| • Mild | | | 12 (10.2) | |

| | | | | |
|---|---|---|---|---|
| • Moderate | | | 13 (11.0) | |
| • Severe | | | 4 (3.4) | |
| • Extremely severe | | | 31 (26.3) | |
| *Stress* | 6.69 | 5.92 | 118 (100%) | $\alpha$ = .954 |
| • Normal | | | 75 (63.6) | |
| • Mild | | | 7 (5.9) | |
| • Moderate | | | 10 (8.5) | |
| • Severe | | | 17 (14.4) | |
| • Extremely severe | | | 9 (7.6) | |

The DASS-21 scores were highest for stress ($M$ = 6.69; $SD$ = 5.92), followed by anxiety ($M$ = 5.78; $SD$ = 5.83) and depression ($M$ = 5.50; $SD$ = 6.09). More than a quarter ($n$ = 36; 30.5%) of participants reported moderate to extremely severe stress levels, and over a third reported moderate to extremely severe anxiety levels ($n$ = 48; 40.7%). While the majority of participants ($n$ = 68; 57.6%) reported normal depression scores, those who reported moderate to extremely severe depression scores are also high ($n$ = 40; 33.9%) - see Table 3. Interestingly, despite the burnout and negative emotional states scores, participants perceived their job performance as high, with a mean score of 54.16 ($SD$ = 6.54).

In the bivariate analyses, workload was significantly correlated with all measures, except for personal burnout ($r$ = .159; $p$ = .085) and job performance ($r$ = .128; $p$ = .167). Personal burnout was positively and significantly correlated with work-related burnout, client-related burnout, and stress but negatively correlated with job performance. While statistically significant correlations were obtained between work-related burnout and all measures, client-related burnout was significantly correlated with job performance only. Statistically significant positive correlations were found between the subscales of DASS-21 and workload and work-related burnout. Finally, job performance was significantly correlated with personal burnout, client-related burnout, work-related burnout, stress, anxiety, and depression, with work-related burnout showing the strongest correlation ($r$ = -.285).

To further test the associations between workload and other variables with the age effect controlled, a series of regression analyses were run using workload as the predictor and other measures as the dependent variables. Age was controlled to avoid the presence of other potential confounding effects. Table 4 and Figure 1 summarises the regression results.

The regression coefficients between workload and work-related burnout yielded a statistically significant result ($B$ = 1.406, $\beta$ = .367, $p$ = .001), suggesting that increased workload predicted greater work-related burnout. However, workload did not significantly predict personal burnout ($B$ = .452, $\beta$ = .119, $p$ = .201) or client-related burnout ($B$ = .672, $\beta$ = .171, $p$ = .065). Results further showed that workload is a strong predictor of depression ($B$ = .502, $\beta$ = .430, $p$ =.001), anxiety ($B$ = .537, $\beta$ = .481, $p$ = .001), and stress ($B$ = .530, $\beta$ = .467, $p$ = .001). On the other hand, no statistically significant result was obtained for job performance ($B$ = .153, $\beta$ = .122, $p$ = .199), implying that workload did not significantly predict job performance.

**Table 4** Regression results with the workload as the predictor variable

| | ***B*** | ***SE*** | ***p*** | **95% CI** | |
|---|---|---|---|---|---|
| | | | | **Lower** | **Upper** |
| Personal burnout | .452 | .119 | .201 | -.243 | 1.147 |
| Work-related burnout | 1.406 | .367 | **.001** | .733 | 2.079 |
| Client-related burnout | .672 | .171 | .065 | -.042 | 1.386 |
| Depression | .502 | .430 | **.001** | .302 | .703 |
| Anxiety | .537 | .481 | **.001** | .350 | .723 |
| Stress | .530 | .467 | **.001** | .340 | .720 |
| Job performance | .153 | .122 | .199 | -.082 | .389 |

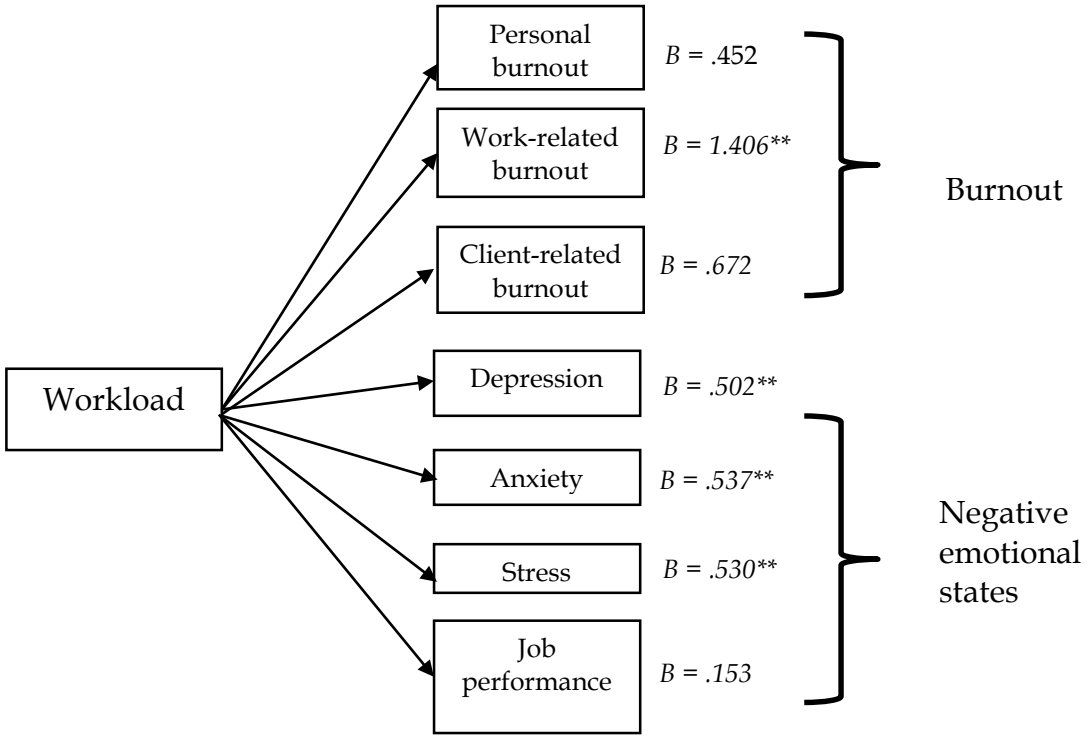


**Figure 1** Regression model on workload, burnout, emotional states, and job performance

## 4.0 DISCUSSION

Since the onset of the COVID-19 pandemic, research has been mostly conducted on the mental health of the general population, leaving considerably unexplored the effects of the pandemic on workload, psychological health, and job performance of government employees during the third wave. This study shows that a high percentage of participants indicated that their workload has increased in the past year. They also reported feeling burnout and high levels of stress, anxiety, and depression. These findings are in keeping with a recent study of government employees in the USA, where 57% of federal employees reported feeling burnt out, with one in three attributing the burnout to COVID-19 circumstances [20].

The present study reveals workload scores were significantly associated with client-related burnout, work-related burnout, and all measures of depression, anxiety, and stress. These results demonstrate the interplay between workload and psychological well-being in government employees providing services to the public. Further exploration of predictive factors identified workload as a significant predictor of high work-related burnout and negative emotional states whilst controlling for age. This is an important finding and represents a potential intervention target to improve the overall psychological well-being of government employees. In their seminal studies, [29] and [30] have long advocated that quantitative job demands in terms of having too much work for the available time are strongly and consistently related to burnout. During the pandemic, government employees have to attend to a high number of clients online and face-to-face, all of whom may react differently given to the changes that had to be made in the service delivery. In many cases too, scarcity of resources (e.g., Internet connection, organisational communication, office guidelines, etc.) and uncertainty about the COVID-19 itself can turn the issue into a logistical problem. All these aspects may then exhaust an employee's energy to the extent that recovery becomes impossible.

Past studies, such as those by [31] and [32], have reported that excessive workload predicts depression, anxiety, and stress. The findings of this study also lent empirical support to the existing literature, demonstrating consistent findings among government employees as well. Given that government employees are in the service sector and the public relies on its services, minimising health

and psychological impact on government employees should be of major concern. Accordingly, addressing their workload issue may, in turn, improve their psychological well-being.

A comparison across job categories is not possible due to the unequal sample sizes of groups. However, the data indicate that most of the participants were teachers or lecturers (44.1%; $n$ = 52). In this subsample, almost 50% of teachers/lecturers reported moderate-to-high levels of personal burnout, 25% scored moderate for work-related burnout, and 46.2% experienced moderate to high levels of client-related burnout. Their stress scores were the highest, followed by anxiety and depression. Even more alarming is the high prevalence of moderate to extremely severe depressive, anxiety, and stress symptoms among this subsample, i.e., 30.8%, 36.5%, and 25%, respectively.

Stress in teaching is a well-recognised phenomenon, indicating that the profession is stressful [33]. With the pandemic, this stress has likely been amplified with the sudden transition to synchronous and asynchronous teaching, together with the lack of instructions from the ministries and employers, as well as overall subjective feelings of techno-inefficacy [33] [34] [35]. All these may adversely affect the teaching profession in an unfortunate and lasting manner. The findings in the present study raise the possibility that within the bigger Malaysian picture, the workload, burnout, and negative emotional states experienced by teachers and lecturers may go relatively ignored by the government. Therefore, the need for interventions on psychological health, particularly coping with the new teaching role, psychological distress, quality of life, as well as on physical health (e.g., ergonomics, quality sleep, exercise) is evident.

Perhaps more crucially is the urgency to relook at the workload, pace, intensity, and overall process in light of this technology-based teaching and learning. This call has been raised before [36] as teachers and lecturers had to cope with the increasing administrative duties, meetings, and hours spent preparing materials for classes, plus keying in data for various forms and reports. It is high time for the government and ministries to provide the most appropriate, strategic training and ongoing learning that can address teachers' and lecturers' needs.

Despite the high workload, burnout, and negative emotional state levels reported by the participants in this study, workload neither correlated nor predicted job performance. This result has implications for understanding job demands, occupational stress, and job performance in non-

Western contexts. Two possible explanations are proposed. First, it is likely that the existing organisational culture binds the employees together and guides their behaviours, even when providing services online; hence, the overall high reported job performance. Perhaps more critical is the second explanation: job performance is a rather sensitive topic for most people; thus, self-report ratings of performance tend to be inflated due to self-presentation bias and social desirability [37] [38]. Therefore, future research is recommended to use multiple measurement methods, such as more objective assessments and non-incumbent ratings [39] to improve the accuracy of this measure.

It is acknowledged that the small sample size may limit the findings of this study. Challenges related to recruiting diverse participants during the pandemic has been described in several publications, e.g., [40] and [41]. Therefore, further research with a larger and more diverse sample size would provide better analysis and a solid evidence base for understanding the effect of workload on government employees.

## 5.0 CONCLUSION

In summary, the findings of this study suggest workload is a key organisational area that can be targeted to reduce burnout and decrease negative emotional states, particularly depression, anxiety, and stress. By identifying workload as a part of job demands that influence burnout and emotional states, it is appropriate to consider interventions that optimise job demands and resources in order to improve employees' psychological well-being. To support government employees in their role, it is of the utmost importance that organisations promote and maximise their health and well-being. The development of theoretically grounded interventions that consider individual and organisational factors can reduce certain aspects of burnout and negative emotional states. In turn, this can ensure better job satisfaction and work performance and retain employees in the workforce.

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## REFERENCES

[1] Hashim, J. H., Adman, M. A., Hashim, Z., Radi, M. F. M., & Kwan, S. C. (2021). COVID-19 epidemic in Malaysia: Epidemic progression, challenges, and response. *Front. Public Health,* vol. 9, no. 560592, doi:10.3389/fpubh.2021.560592

[2[ Rodríguez-López, A. M., Rubio-Valdehita, S., & Díaz-Ramiro, E. M. (2021). Influence of the Covid-19 pandemic on mental workload and burnout of fashion retailing workers in Spain. *Int. J. Environ. Res. Public Health,* vol. 18, no. 3, 983. doi:10.3390/ijerph18030983

[3] Tengilimoğlu, D., Zekioğlu, A., Tosun, N., Işık, O., & Tengilimoğlu, O. (2021). Impacts of COVID-19 pandemic period on depression, anxiety and stress levels of the healthcare employees in Turkey. *Leg. Med.*, vol. 48, no. 101811, doi:10.1016/j.legalmed.2020.101811

[4] Gewin, V. (2021). Pandemic burnout is rampant in academia. *Nature*, vol. 591, 489-491, doi:10.1038/d41586-021-00663-2

[5] Ingusci, E., Signore, F., Giancaspro, M. L., Manuti, A., Molino, M., Russo, V., Zito, M., & Cortese, C. G. (2021). Workload, techno overload, and behavioral stress during COVID-19 emergency: The role of job crafting in remote workers. *Front. Psychol.*, vol. 12, no. 655148, doi:10.3389/fpsyg.2021.655148

[6] Parent-Lamarche, A., & Boulet, M. (2021). Workers' stress during the first lockdown: consequences on job performance analyzed with a mediation model. *J. Occup. Environ. Med.*, vol. 63, no. 6, 469–475.doi: 10.1097/JOM.0000000000002172

[7] World Health Organization. (2019). *Burn-out An "Occupational Phenomenon": International Classification of Diseases.* Available at: https://www.who.int/news/item/28-05-2019-burn-out-an-occupational-phenomenon-international-classification-of-diseases

[8] Schaufeli, W. B., Desart, S., & De Witte, H. (2020). Burnout Assessment Tool (BAT)—Development, validity, and reliability. *Int. J. Environ. Res. Public Health,* vol. 17, no. 24, 9495, doi:10.3390/ijerph17249495

[9] Aronsson, G., Theorell, T., Grape, T., Hammarström, A., Hogstedt, C., Marteinsdottir, I., Skoog, I., Träskman-Bendz, L., & Hall, C. (2017). A systematic review including meta-analysis of work environment and burnout symptoms. *BMC Public Health*, vol. 17, no. 264, doi:10.1186/s12889-017-4153-7

[10] Bakker, A. B., & de Vries, J. D. (2021). Job Demands–Resources theory and self-regulation: New explanations and remedies for job burnout. *Anxiety, Stress, Coping*, vol. 34, no. 1, 1-21, doi:10.1080/10615806.2020.1797695

[11] McCormack, H. M., MacIntyre, T. E., O'Shea, D., Herring, M. P., & Campbell, M. J. (2018). The prevalence and cause(s) of burnout among applied psychologists: A systematic review. *Front. Psychol.*, vol. 9, no. 1897, doi:10.3389/fpsyg.2018.01897

[12] Sharifi, M., Asadi-Pooya, A. A., & Mousavi-Roknabadi, R. S. (2021). Burnout among healthcare providers of COVID-19: A systematic review of epidemiology and recommendations. *Arch. Emerg.*, vol. 9, no. 1, e7, doi: 10.22037/aaem.v9i1.1004

[13] Akca, M., & Küçükoğlu, M. T. (2020). Relationships between mental workload, burnout, and job performance: A research among academicians. In A. Realyvásquez-Vargas, K. C. Arredondo-Soto, G. Hernández-Escobedo, & J. González-Reséndiz (Eds.), *Evaluating Mental Workload For Improved Workplace Performance*, 49–68, doi:10.4018/978-1-7998-1052-0.ch003

[14] Nordin, R. B., & Ahin, C. B. (2016). Occupational stress and coping strategies among Malaysian employees: Where is the role of organizations? In A. Shimazu, R. Nordin, M. Dollard, & J. Oakman (Eds.), *Psychosocial Factors at Work in the Asia Pacific*, 249-255, doi:10.1007/978-3-319-44400-0_13

[15] Bakker, A. B., & Demerouti, E. (2014). Job demands-resources theory. In P. Y. Chen & C. L. Cooper (Eds.), *Work and Wellbeing*, 37–64, doi:10.1002/9781118539415.wbwell019

[16] Market Connections. (2020). *How Has Covid-19 Affected Your Federal Customer?* Available at https://www.marketconnectionsinc.com/how-has-covid-19-affected-your-federal-customer/

[17] The Centre for State and Local Government Excellence. (2020). *Public Sector Employee Views on COVID-19: May 2020 vs. October 2020.* Available at https://slge.org/news-posts/as-covid-19-cases-surge-across-the-u-s-state-and-local-employee-negative-job-sentiment-is-on-the-rise

[18] The Centre for State and Local Government Excellence. (2021). *Update on Public Sector Employee Views on Finances and Employment Outlook Due to COVID-19: May vs. October 2020.* Available at https://slge.org/resources/public-sector-employee-views-on-finances-and-employment-due-to-covid-19-may-vs-october-2020

[19] Barrett, K., & Greene, K. (2020). A burnout crisis hits government. *Route Fifty*. Available at https://www.route-fifty.com/management/2020/12/burnout-crisis-hits-government/170966/

[20] Eagle Hill Consulting. (2020). *The 2020 Eagle Hill Consulting Federal Employee Experience Survey*. Available at https://www.eaglehillconsulting.com/insights/federal-employee-burnout-troubling-levels-new-research

[21] Alexander, A., De Smet, A., Langstaff, M., Ravid, D. (2021). *What Employees Are Saying About the Future of Remote Work*. McKinsey & Company. Available at https://www.mckinsey.com/business-functions/people-and-organizational-performance/our-insights/what-employees-are-saying-about-the-future-of-remote-work

[22] Shi, Y., Jiang, R., Zhu, C., Zhang, M., Cai, H., Hu, Z., ... & Li, J. (2021). High job burnout predicts low heart rate variability in the working population after a first episode of acute coronary syndrome. *Int. J. Environ. Res. Public Health*, vol. 18, no. 7, 3431,doi:10.3390/ijerph18073431

[23] Salvagioni, D. A. J., Melanda, F. N., Mesas, A. E., González, A. D., Gabani, F. L., & Andrade, S. M. D. (2017). Physical, psychological and occupational consequences of job burnout: A systematic review of prospective studies. *PloS One*, vol. 12, no. 10, e0185781, doi:10.1371/journal.pone.0185781

[24] Hart, S. G., & Staveland, L. E. (1988). Development of NASA-TLX (Task Load Index): Results of empirical and theoretical research. In *Adv. Psychol.*, vol. 52, 139-183, doi:10.1016/S0166-4115(08)62386-9

[25] Kristensen, T. S., Borritz, M., Villadsen, E., & Christensen, K. B. (2005). *Copenhagen Burnout Inventory (CBI)* [Database record]. APA PsycTests, doi:10.1037/t62096-000

[26] Lovibond, S. H., & Lovibond, P. F. (1995). *Manual for the Depression Anxiety Stress Scales*, 2nd ed. Psychology Foundation of Sydney.

[27] Goodman, S. A., & Svyantek, D. J. (1999). *Task-Based Job Performance Scale* [Database record]. APA PsycTests, doi:10.1037/t10091-000

[28] Field, A. (2018). *Discovering Statistics Using SPSS* (5th Ed.). SAGE Publications.

[29] Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annu. Rev. Psychol.*, vol. 52, no. 1, 397-422, doi:10.1146/annurev.psych.52.1.397

[30] Maslach, C. (1982). Understanding burnout: Definitional issues in analyzing a complex phenomenon. In W. S. Paine (Ed.), *Job Stress and Burnout*: *Research, Theory, and Intervention Perspectives,* 29-40.

[31] Greenglass, E. R., Burke, R. J., & Moore, K. A. (2003). Reactions to increased workload: Effects on professional efficacy of nurses. *Appl. Psychol.*, vol. 52, no. 4, 580-597. doi: 10.1111/1464-0597.00152

[32] Melchior, M., Caspi, A., Milne, B. J., Danese, A., Poulton, R., & Moffitt, T. E. (2007). Work stress precipitates depression and anxiety in young, working women and men. *Psychol. Med.*, vol. 37, no.8, 1119-1129. doi: 10.1017/S0033291707000414

[33] Klapproth, F., Federkeil, L., Heinschke, F., & Jungmann, T. (2020). Teachers' experiences of stress and their coping strategies during COVID-19 induced distance teaching. *J. Pedagog. Res.*, vol. 4, no.4, 444-452, doi: 10.33902/JPR.2020062805

[34] Penado Abilleira, M., Rodicio-García, M. L., Ríos-de Deus, M. P., & Mosquera-González, M. J. (2021). Technostress in Spanish university teachers during the COVID-19 pandemic. *Front. Psychol.*, vol. 12, no. 496, doi: 10.3389/fpsyg.2021.617650.

[35] Pöysä, S., Pakarinen, E., & Lerkkanen, M. K. (2021). Patterns of teachers' occupational well-being during the COVID-19 pandemic: Relations to experiences of exhaustion, recovery, and interactional styles of teaching. *Front. Educ.*, vol. 6, no. 699785, doi: 10.3389/feduc.2021.699785

[36] Fiona, S. M. A. (2018). An education wish list. *New Straits Times.* Available at

https://www.nst.com.my/opinion/letters/2018/05/371201/education-wish-list

[37] Gorgievski, M. J., Bakker, A. B., & Schaufeli, W. B. (2010). Work engagement and workaholism: Comparing the self-employed and salaried employees. *J Posit Psychol.*, vol. 5, no. 1, 83-96. doi:10.1080/17439760903509606

[38] Tourangeua, R., Rips, L.J., & Rasinski, K. (2000). *The Psychology of Survey Response*. New York: Cambridge University Press.

[39] Spector, P. E. (2006). Method variance in organizational research: Truth or urban legend? *Organ Res Methods,* vol. 9, no. 2, 221–232, doi:10.1177/1094428105284955

[40] Catalfamo, C. J., Heslin, K. M., Shilen, A., Khan, S. M., Hunsaker, J. R., Austhof, E., ... & Pogreba-Brown, K. (2021). Design of the Arizona CoVHORT: A population-based COVID-19 cohort. *Front. Public Health*, vol. 9, no. 21, doi:10.3389/fpubh.2021.620060

[41] Hensen, B., Mackworth-Young, C. R. S., Simwinga, M., Abdelmagid, N., Banda, J., Mavodza, C., Doyle, A. M., Bonell, C., & Weiss, H. A. (2021). Remote data collection for public health research in a COVID-19 era: Ethical implications, challenges, and opportunities. *Health Policy Plan.*, vol. 36, no. 3, 360-368, doi:10.1093/heapol/czaa158