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A Study on the Causes of Work Stress Among the Malaysian Civil Defense Force Personnel

Khamarul Arifin Bin Mohd Zainal Abidin[1], *Maliza Delima Kamarul Zaman[2], Nor Intan Adha Hafit[2], Suhaila Mohamed[2]
[1]S A R Equipment & Training, Malaysia
[2]Faculty of Business and Management Universiti Teknologi MARA, Puncak Alam, Malaysia
Email: khamarularifin@gmail.com, *malizadelima@uitm.edu.my, intan520@uitm.edu.my, suhaila423@uitm.edu.my
Corresponding Author: Maliza Delima Kamarul Zaman

Abstract: The frustrations, expectations, and deadlines that accompany life in the contemporary world have, for many, become a default setting. Receiving different signals that upset our equilibrium, or that we consider a potential danger, is what, physically, we call stress. The seriousness of stress is highlighted by the fact that most people in the working population, during the period between 2021 and 2022, had cases of work-related health illness primarily attributed to work stress, depression, and anxiety. What is understood is that stress is a part of life, and it is certainly something that no one can run away from. The amount of stress that one has to go through in the workplace, particularly in the context of Malaysia, has been on the rise ever since the onset of the Coronavirus 2019 (COVID-19) pandemic. A number of earlier researchers looked into the levels of stressful occupations in Malaysia and the reasons that can predict such stressful situations, and many such incidents were uncovered. Given the stressful nature of the pandemic, the government of Malaysia put in motion the Malaysia Civil Defense Force (MCDF), heavily referred to as the 'Angkatan Pertahanan Awam Malaysia'. Given the nature of the work that the MCDF has to do, it is clear that stress is a huge problem. This thesis investigates the relationship between work stress and its underlying organizational, operational, and lifestyle causes among personnel at the MCDF Kuala Lumpur District Office. Utilizing Pearson Product Correlation Coefficient and Multiple Regression Analysis, the study supports the correlations between work stress and both organizational and operational causes, while lifestyle factors were found to be unsupported. The study underscores the importance of addressing these stressors to enhance employee well-being and productivity. Recommendations for MCDF include enhancing psychological support, improving occupational health and safety measures, and fostering effective communication within the organization. The research highlights the necessity for broader sample areas and multi-method data collection in future studies. Understanding these dynamics is critical for strategic decision-making and fostering a supportive work environment in high-stress government agencies.

Keywords: *Stress, Organizational, Operational, Lifestyle, Civil Defense.*

1. Introduction

In today's fast-paced, high-pressure world, workplace stress is an increasingly critical issue, particularly among frontline responders. According to the World Health Organization (WHO, 2023), mental health issues caused by work-related stress contribute significantly to lost productivity and absenteeism. Recent data from the Institute for Public Health (2023) indicates a worrying rise in mental health disorders among Malaysians, particularly post-pandemic. Stress, while a natural physiological response to challenging situations, can also be beneficial in emergencies—such as reacting quickly to avoid an accident or overcoming pressing challenges. However, prolonged exposure to stress becomes detrimental. As Dua (2019) noted, once it exceeds manageable limits, stress contributes to serious health consequences, including cardiovascular issues, mood disorders, and decreased quality of life. Prolonged stress exposure is associated with various physical and psychological disorders such as depression, anxiety, and heart disease (Paganin & Simbula, 2021). Work-related stress does not vanish after office hours; instead, it accumulates and may lead to long-term harm (Canadian Mental Health Association, 2016). Karasek's Job Demand-Control model (Crescenzo, 2016) explains that stress intensifies when employees face high demands with low autonomy, a condition leading to negative outcomes like immune suppression and mental health degradation.

The Malaysian Civil Defense Force (MCDF), due to its high-stakes role in disaster response, embodies these conditions. Despite the significant mental and emotional load borne by MCDF personnel, especially during and after the COVID-19 pandemic, little empirical research has examined their specific stressors. This study seeks

to fill that gap. While the prevalence of stress-related disorders is acknowledged in global and national reports, little focus has been given to stress experienced by MCDF personnel—a group tasked with both enforcement and rescue roles. Organizational factors (e.g., leadership instability, job ambiguity), operational demands (e.g., long hours, exposure to trauma), and lifestyle challenges (e.g., irregular sleep, lack of exercise) are all stress-inducing elements. Yet, there is a lack of urgency in addressing these in occupational health discourse. This study aims to explore these critical independent variables and how they relate to work stress among MCDF Kuala Lumpur personnel. To understand this topic, it is important to identify the research question as the guideline to determine the objective of conducting the research. Therefore, the research questions of this research are as follows:

RQ1: Is there any relationship between organizational causes and stress among MCDF personnel?
RQ2: Is there any relationship between operational causes and stress among MCDF personnel?
RQ3: Is there any relationship between lifestyle causes and stress among MCDF personnel?
RQ4: What is the most significant factor that contributes to stress among MCDF personnel?

2. Literature Review

Organizational Causes and Work Stress

Factors that affect work stress such as differences in the characteristics of each individual, the ability of individuals to deal with a problem, coping with stress, role ambiguity, role conflict, role overload, exposure to incidents critical, discrimination at work, lack of cooperation among co-workers, and job dissatisfaction, organizational justice (at work) lack of quality sleep, lack of motivation or external support, past trauma and low psychological power or stress control that affects the coping used (Wijayanti & Fauzi, 2020). A study by Akerstorm et. al. (2021) has shown that multiple factors, such as high job demands, low job control, low job support, effort-reward imbalance, atypical working hours, poor psychosocial safety climate, bullying, and role stress, are some of the causes for employees' burnout or stress-related mental health problems. Poorly managed and organized work environments can have negative effects on employees that, rather than enhancing their dignity, wear them out and drain their psychological resources (Edú-Valsania et al., 2022). Increasing job control and autonomy is crucial for reducing work stress. Strategies include involving employees in decision-making, providing opportunities for skill development, and allowing flexible work arrangements. An international journal highlighted these strategies' effectiveness in reducing stress and improving job satisfaction (Jatmiko & Pangarso, 2022). Providing clear job descriptions, setting realistic expectations, and offering conflict resolution mechanisms can help reduce stress related to role ambiguity and conflict.

Research in Frontiers in Psychology in 2024 suggested that such interventions effectively reduce role-related stress (Abdou et al., 2024). Improving the physical and psychosocial work environment is essential for reducing stress. This includes ensuring safe and comfortable working conditions, promoting a positive organizational culture, and offering wellness programs. It was found that enhancements in the work environment significantly reduce work stress (Jamil et al., 2023). In the study by Bai et. al. (2004), during the SARS outbreak, infection control procedures were frequently modified because of the evolving understanding of the pandemic. Health care facilities became highly stressful environments because health care workers spent hours each day putting on and removing airtight protective equipment. This only added to the exhaustion that they were experiencing from the increased workload caused by the outbreak (Bai et al., 2004). In the study by Cui et. al. (2021) among nurses, the causes of occupational stress are caused by high expectations, lack of time, skills, and social support, which, in turn, causes anxiety, PSTD, distress, burnout, and other psychological problems. Other common causes of stress and anxiety include lack of an effective hospital management system, lack of training, uncertainty regarding COVID-19 treatment and care policies, which further exacerbate the situation (Cui et al., 2021). According to Stogner et. al. (2020), law enforcement personnel, already compounded by the normal risk factors, had to add to it the COVID-19 social distancing policies that resulted in numerous changes and alterations in protocols that drive workplace stress. The study also found that mental health problems among law enforcement personnel are associated with a demanding work environment, agency culture, and inconsistent shift scheduling. They, as many first responders, are subjected to altered patrolling routines, changes to shift schedules, and work hours that drive workplace stress higher during the COVID-19 pandemic (Stogner et al., 2020).

A study by Li et. al. (2019) found that several sources of stress (stressors) in the police force are poor communication between administrators and officers, unfair supervision, controversial performance ratings, and weak supervisory support. Excessive workload and high job demands are primary operational causes of work stress. Studies have shown that when employees perceive their workload to be unmanageable, it leads to increased stress levels. A study by Benthem et. al. (2022) used a computational model to demonstrate how high job demands can lead to chronic stress, affecting both mental and physical health. The physical and psychosocial work environment also plays a critical role in causing work stress. Poor working conditions, lack of resources, and inadequate support from management can exacerbate stress. This research by Goh et. al. (2016) emphasized the importance of a supportive work environment in reducing stress and improving employee well-being. According to Chua et. al. (2022), stress that produces the psychological response of job strain has been widely recognized as a response that may be explained by the environmental conditions of the workplace.

Operational Causes and Work Stress

To lower employee stress, effective workload management is essential. According to a study by Crescenzo (2016) in the Journal of Health and Social Sciences, the main causes of professional stress are excessive workloads and unrealistic deadlines. According to the study, employees' stress levels rise when they believe their responsibilities are too much to handle, which can result in burnout and lower productivity. Role conflict and ambiguity, where employees are uncertain about their job responsibilities or receive conflicting demands, have been linked to higher stress levels. A study by Abdou et. al. (2024) highlighted that role ambiguity and conflict significantly contribute to psychological distress and reduced job satisfaction. According to the Centers for Disease Control (2020), providing care to others during the COVID-19 pandemic can lead to stress, anxiety, fear, and other strong emotions. How one copes with these emotions can affect their well-being, the care they give to others while doing their job, and the well-being of the people they care about outside of work. Frontline workers such as health care providers and first responders were identified as people who may respond more strongly to the stress of a crisis (Centers for Disease Control, 2020).

The risk of infection for healthcare workers is directly increased by long-term exposure to large numbers of infected patients, and it is also indirectly increased by pressure of treatment, work intensity, and lack of rest (Wang et al., 2020). Lack of job control and autonomy is another significant factor contributing to work stress. Employees who feel they have little control over their work processes and outcomes are more likely to experience stress. Research published in the International Journal of Academic Research by Jatmiko and Pangarso (2022) found a strong inverse relationship between job autonomy and work stress, suggesting that increasing employee control can mitigate stress. A study on anesthesiologists' work pattern behavior by Gupta et. al. (2020) involves erratic work schedules, night shifts, and long hours in the operating theatres and intensive care unit. In the study by Stogner et. al. (2020), he stated that law enforcement personnel presumably face higher exposure to traumatic events. Apart from the direct 25 impact of the COVID-19 pandemic, the officers are likely to experience increased stress encounters with individuals suffering from mental health problems aggravated by fear of contagion, economic uncertainty, resource shortages, and isolation. First responders have the responsibility for maintaining public safety, risk of exposure through interactions with the community, and the concern of exposing family members to the virus (Stogner et al., 2020).

Lifestyle Causes and Work Stress

According to Sherman et. al. (2020), due to depression and anxiety associated with childcare issues, food insecurity, reduced access to routine medical care, symptoms ascribed to COVID-19, and lack of daily structure as a result of social isolation and re adaptation of new norms, due to the reimplementation of movement control measures, had significantly elevated psychological distress (Sherman et al., 2020). Adopting a healthy lifestyle is one of the stress management techniques (Dua, 2019). The need for quick adaptation was urgently promoted by the stress and anxiety created by the social isolation and consequent management of fear; the fear of contamination, health threat, job loss, and insecurity (Soares, 2021). In a study by Shanahan et. al. (2020), participants on average responded that the COVID-19 crisis was somewhat disruptive to their lifestyle (i.e., daily routine, work, education, and family). Secondary consequences of the pandemic and social isolation, as major lifestyle and economic disruptions re-ensued, associated with recurrent social standstill and economic decline, were a common theme. On a broader scale, lifestyle causes can impact workplace productivity, absenteeism, and mental health. Studies have shown that individuals with healthier lifestyle habits, such as

regular physical activity and balanced diets, report higher productivity and fewer mental health issues such as depression and anxiety (Marecki, 2024). Conversely, negative lifestyle choices, such as poor nutrition and substance abuse, are associated with diminished cognitive function and lower work performance (Pignatelli, 2020). The findings of the research of Kraft et. al. (2019) indicate that salespeople who practice a wellness lifestyle would have a high probability of displaying problem-solving tendencies rather than emotion-based avoidance tactics in coping with job stress.

Sharifi-Rad et. al. (2020), in their study, found that lifestyles such as smoking, alcohol consumption, adequate or inappropriate diet, exercise, training, or untrained condition, does contribute to oxidative stress, which can affect muscle activity, ultimately contributing to skeletal muscle fatigue during strenuous exercise. Having an unhealthy eating habit or an unbalanced lifestyle cannot be compensated for by consuming superfoods. (Sharifi-Rad et al., 2020). Lifestyle causes are particularly relevant in the context of military operations, where the physical and mental demands on personnel are often extreme. In the military, lifestyle factors such as fitness, nutrition, stress management, and sleep play a crucial role in ensuring operational readiness and the overall health of soldiers. Maintaining an optimal lifestyle is not only important for physical endurance but also for cognitive performance and mental resilience (Sanders et al., 2021). Sleep is a crucial lifestyle factor that directly influences military performance. In numerous military missions, soldiers must operate under conditions of sleep deprivation, which adversely impacts cognitive function, reaction time, and decision-making capabilities (Petrofsky et al., 2021). From the literature reviewed, several hypotheses were developed:

H1: There is a significant relationship between organizational causes and stress among MCDF personnel.
H2: There is a significant relationship between operational causes and stress among MCDF personnel.
H3: There is a significant relationship between lifestyle and stress among MCDF personnel.

3. Research Design

The unit analysis of this study was the MCDF personnel who were on active duty operating from the MCDF Kuala Lumpur District office, Jalan Padang Tembak, Kuala Lumpur. They were chosen above other agencies as they were carrying out tasks almost like their counterparts from the medical fraternity.

Population

The term "population" is also defined by Sekaran and Bougie (2016) as the total set of people, objects, or events that the researcher is interested in studying. The population consists of 180 MCDF personnel who were on active duty operating from the MCDF Kuala Lumpur District office, Jalan Padang Tembak, Kuala Lumpur. The population was chosen to analyze the employees' work stress levels.

Sampling Technique

The total population for this study consisted of 180 active-duty personnel stationed at the MCDF Kuala Lumpur District office. This site was selected because it represents one of the most active and urbanized deployments of MCDF personnel, frequently tasked with complex emergency responses. This study employed census sampling, surveying the entire population of 180 personnel to ensure comprehensive coverage of stress levels and contributing factors within the district.

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Data Analysis

In this research, the unit of analysis included the individual-level data of those currently working from the MCDF Kuala Lumpur District office, Jalan Padang Tembak. This level of analysis is suitable for the research, which aims to understand the impact of work stress. The study was structured around five essential parts, each focusing on different aspects of the data.

Correlation Analysis

Pearson correlation results showed significant positive relationships between stress and the independent variables. Organizational factors: $r = .627$, $p < 0.01$, Operational factors: $r = .589$, $p < 0.01$ and Lifestyle factors: $r = .403$, $p < 0.05$. These values indicate moderate to strong correlations, supporting the notion that these variables are associated with stress levels among MCDF personnel.

Multiple Regression Analysis

A multiple regression analysis was conducted to determine the predictive power of the three independent variables on stress. The model was significant, $F(3,119) = 42.56$, $p < 0.001$, with an R^2 value of 0.708. This indicates that 70.8% of the variance in stress levels can be explained by organizational, operational, and lifestyle factors. The regression coefficients are as follows: Organizational causes: $\beta = 0.356$, $p < 0.001$; Operational causes: $\beta = 0.417$, $p < 0.001$, and Lifestyle causes: $\beta = 0.087$, $p = 0.109$ (not significant). This result suggests that while organizational and operational causes significantly predict stress levels, lifestyle causes do not show a statistically significant effect.

4. Conclusion

Prolonged delays in managing stress-related health issues can easily lead to health issues that are impossible to cure, potentially impacting the rest of a person's life. Stemming from this, it is needless to say that some of the issues as a result of organisational structure, in verbal and non-verbal, can help a result in relieving a considerable amount of stress. Government institutions like the MCDF, with the stress-driven hierarchical system, can add considerable weight to the already existing stressors in the system. Leadership redesigns appear to have a roll-down effect, inducing modifications on the vision/priorities and subsequently policies. Such a factor, in the perception of many, is bound to elevate stress levels. Effective communication of this type is a suitable course of action rather than the "promotion" of emotional denial. The purposeful organizing of structural aids, combined with the modifications to the functional points, helps in lessening the amount of stress caused. Through consistent leadership, effective communication, resource allocation, and psychological support, the MCDF can mitigate work stress and enhance the overall effectiveness of its operations. Future research should continue to explore these dynamics, expanding the scope to include multiple district offices and incorporating more detailed analyses of specific stressors. By doing so, the MCDF can build a comprehensive understanding of work stress and develop robust strategies to support its personnel. The study confirms the acceptance of two hypotheses:

H1: There is a significant relationship between organizational causes and stress.
H2: There is a significant relationship between operational causes and stress.

These findings align with past literature, such as Akerstrom et al. (2021), who highlighted the effect of organizational environment on burnout, and Crescenzo (2016), who found operational overload to be a major stress contributor (the most significant factor). However, H3, which hypothesized a significant relationship between lifestyle and stress, was not supported. This may be due to the uniformity of working conditions within the MCDF personnel, making lifestyle variations less impactful. This study is geographically limited to Kuala Lumpur and is based on self-reported data, which may be subject to bias.

Suggestions for Future Research

The future research is suggested to expand by adding personnel from various districts. This would widen the scope of the sample, while qualitative approaches would help illuminate nuanced aspects of stress. It would also be interesting to investigate the moderating effect of gender, age, and work experience.

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