

**FACTORS CONTRIBUTING TO STRESS ON
HOUSE OFFICERS DURING COVID-19
PANDEMIC IN THE DISTRICT AND STATE
HOSPITALS OF NEGERI SEMBILAN,
MALAYSIA**

PURUSHOTHAMAN A/L RAMALINGAM

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ABSTRACT

This study examined the psychological effects of the Covid-19 pandemic on house officers in district and state hospitals in Negeri Sembilan, Malaysia, revealing significant challenges faced by these frontline healthcare workers. The objective was to elucidate their stressors and identify determinants of stress, aiming to provide insights that could improve their well-being. The present study conducted between May and August 2023, the cross-sectional questionnaire survey gathered responses from 208 house officers via an online platform, adhering to social distancing measures. A comprehensive review of databases such as Google Scholar, Embase, PubMed, and Library was performed, focusing on English language publications, cross-sectional studies, and reports on psychological issues like depression, anxiety, and stress. The sample size calculation ensured representativeness, and Pearson's correlation coefficient was used to analyze inter-correlations between variables. The findings revealed a significant deterioration in the psychological well-being of house officers, with increased stress leading to higher cases of anxiety and burnout. These results underscored the urgent need for support measures to address mental health challenges. Practical implications highlighted the necessity for accessible counseling services and effective measures to safeguard the mental well-being of house officers. By identifying the determinants of stress, the study offered insights that could help reduce stress levels and improve overall well-being during crises. The research emphasized the broader social impact of supporting frontline healthcare workers' mental health, which is critical for maintaining an effective healthcare system, especially during public health crises. Addressing these mental health challenges could lead to better patient care and overall public health outcomes. This study provided valuable insights into the specific challenges faced by house officers in Negeri Sembilan during the Covid-19 pandemic, contributing to the literature by highlighting the need for targeted mental health interventions.

Keywords: Stress, anxiety, burnout, mental well-being, Covid-19 pandemic

APPROVAL

This is to certify that this thesis conforms to acceptable standards of scholarly presentation and is fully adequate, in quality and scope, for the fulfillment of the requirements for the of Master of Science.

The student has been supervised by: **Professor Dr Siow Heng Loke**

The thesis has been examined and endorsed by:

Professor Dr. Siti Maziha Mustapha

Professor

Infrastructure University Kuala Lumpur

Examiner 1

Dr Khairul Nizam Bin Mahmud

School of Management

Asia e University

Examiner 2

This thesis was submitted to Asia e University and is accepted as fulfillment of the requirements for the Master of Science.



Associate Professor Dr Oo Yu Hock

Asia e University

Chairman, Examination Committee

18 September 2024

DECLARATION

I hereby declare that the thesis submitted in fulfilment of the Master of Science is my own work and that all contributions from any other persons or sources are properly and duly cited. I further declare that the material has not been submitted either in whole or in part, for a degree at this or any other university. In making this declaration, I understand and acknowledge any breaches in this declaration constitute academic misconduct, which may result in my expulsion from the programme and/or exclusion from the award of the degree.

Name: Purushothaman A/L Ramalingam



Signature of Candidate:

Date: 18 September 2024

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LIST OF ABBREVIATION

WHO	World Health Organizations
AAMC	American Association Medical College
TTSC	Transactional theory of stress and coping
SPSS	Statistics packages of social science
HTJS	Hospital Tuanku Jafaar Seremban
HTAN	Hospital Tuanku Ampuan Najiah

CHAPTER 1

INTRODUCTION

1.0 Introduction

The impact of Covid-19 from the beginning of the year 2020 has been rising significantly towards the livelihood, economy and physical and mental state of people all around the world. The Covid-19 pandemic has added to the increasing stress level among people all around the world before the pandemic (Wang, Tee, Roy, Fardin, Srichokchatchawan, Habib & Zhou, 2021). Although the Pandemic caused by Covid-19 is a novel and dangerous type of virus, it has been linked to symptoms that can range from the cold or flu to more serious disorders. Severe instances of the illness might result in cardiac, affect breathing, and even death. Covid-19, in addition to its physical consequences, has the potential to harm the mental health of people (Wang et al, 2021).

During the virus outbreak, a broad range of psychological consequences was documented at the personal, local, regional, and international levels (Wang et al, 2021). Individuals are scared of dying due to the disease and due to that they are stereotyped by other people. The epidemic has harmed public mental well-being, perhaps leading to mental crises. Mental issues during the Covid-19 epidemic have been known to cause emotional discomfort, sadness, anxiety, rapid changes in mood, impatience, sleeplessness, behavioral problems and rage among the individuals affected (Salari, Hosseinian-Far, Jalali, Vaisi-Raygani, Rasoulpoor, Mohammadi & Khaledi-Paveh, 2020). It was clear that perhaps the pandemic's unstoppable emotional and societal effects were unavoidable; hence it was important to make efforts to build resilience and cope with such devastating repercussions. The stress among students

had also risen due to the pandemic and the closure of educational institutions (Sundarasan, Chinna, Kamaludin, Nurunnabi, Baloch, Khoshaim & Sukayt, 2020). According to the article by Khademian, Delavari, Koohjani, and Khademian (2021), an increasing number of deaths caused due to the pandemic causes community concerns due to misunderstanding, worry, grief, and emotional uncertainty, which led to actions that were out of control. In this circumstance, authorities must take the necessary steps to enhance people's mental health. At present, the health workers and the front-line workers were the main assets in fighting against this dangerous disease that is causing an everlasting effect on the world. Doctors were striving for the safety of sick people during Covid-19; they were constantly attempting to break the virus's chain; doctors were unable to return home even after finishing their job in Covid-19 wards, where people were quarantined for 14 days.

The fear of becoming sick, as well as the worry of losing loved ones and not being able to meet them for a long time, was always present in their minds (Dwivedi & Pande, 2020). The young doctors who have just joined their duties after being graduated are in fear of the issues that they might face if they could get infected. Young Doctors could get more stress which could get them demotivated from their job. This was another risk that the health sector had if the doctors were not willing to treat the patients with Covid-19 would affect them very badly as there was already a shortage of personnel in the health sector. Covid-19 was linked to the majority of variables that caused depression, worry, and stress, such as having a susceptible family member, illness risk, and keeping up with Covid-19 news. As a result, it was indeed possible that physicians would not be able to recover from the risk of ever-increasing workloads, which might have a variety of negative repercussions (Dwivedi & Pande, 2020).

Therefore, governmental organisations must look into this matter as increasing stress levels among people can harm the current pandemic situation. Hence, the need for the current study was timely and important to cater to the mental health issues that doctors and other health workers were facing.

1.1 Background of the Study

According to Wang et al. (2021), the unpredictability and ongoing quarantine restrictions put emotional strain on people, a trend observed since the first countrywide movement control order was enforced in March 2020 in Malaysia to limit the spread of Covid-19. The pandemic, being highly contagious, necessitated tight measures limiting movement both within and outside the city, such as lockdowns, travel limitations, social isolation, and personal cleanliness. This study examined the stress faced by house officers in the health and safety industry in Malaysia due to the pandemic and the movement control order (MCO), which affected their mental well-being and quality of life (Yee et al., 2021).

Besides the increasing workload, it was conceivable that doctors at the frontline, notably physicians, had limited opportunities for recuperation. Recovery processes related to the emotional factors individuals experienced outside of working hours, such as emotional detachment from their work, control over leisure time, and relaxation (Mohd Fauzi et al., 2020).

It was evident that frontline workers, including doctors, nurses, and other medical and hospital staff, played a crucial role in helping patients recover from the effects of the life-threatening disease and survive the pandemic. However, their increased risk of infection despite taking precautionary measures had a significant impact on the mental well-being of healthcare personnel. The proliferation of new

Covid-19 cases across the world, along with the associated suffering and death, posed numerous challenges to countries. The mental and psychological toll on healthcare professionals throughout the epidemic remained an unrecognized and neglected area, affecting approximately 5.09% of individuals. An individual's psychological well-being was crucial in influencing their performance (Zhang et al., 2021).

Covid-19 was observed to have a negative influence on psychological health in various groups, including senior doctors, practicing physicians, nurses, and other staff, across several nations. Doctors working during Covid-19 faced significant stressors in their workplaces, including shortages of personnel, inadequate infrastructure and equipment for personal protection, risk of infection, prolonged separation from their families, sleep loss due to high job pressure, and continuous emotional and physical strain (Dwivedi & Pande, 2020).

Therefore, the study focused on identifying the most relevant stress factors that were linked to house officers in Negeri Sembilan during Covid-19, particularly emphasizing common and emerging issues affecting the mental health of healthcare professionals, especially young doctors and those at the early stages of their careers in Negeri Sembilan. The researcher chose professionals in Negeri Sembilan for the study due to the limited availability of research related to the topic and because Negeri Sembilan was one of the most affected places during the Covid-19 pandemic. Additionally, the restrictions and lockdowns within Negeri Sembilan were examined to understand their effects within the region.

1.2 Problem Statement

To address the stressors faced by house officers during the Covid-19 pandemic, numerous psychological issues, such as burnout, anxiety, and stress, were prevalent.

House officers, as frontline healthcare workers, encountered a unique combination of challenges, including increased patient loads, the risk of infection, and overwhelming work demands, which significantly impacted their mental health. Studies have indicated that these psychological effects were pervasive, with many house officers experiencing burnout due to the prolonged exposure to high-stress environments and the uncertainty of the pandemic (Schluger, 2022; Jha, Davies, & Beynon, 2023). The need for immediate interventions, such as psychological support and targeted training, is essential to prevent the worsening of these issues (Mohd Fauzi, Muhamad Robot, & Mat Saruan, 2020). Burnout, in particular, is characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment, leading to deteriorating mental and physical well-being (Dyrbye & Shanafelt, 2020). This underscores the importance of addressing the psychological issues of house officers, as their health directly impacts patient care.

The anxiety resulting from these stressors has far-reaching consequences, not only on the well-being of house officers but also on patient outcomes. Anxiety, as a response to ongoing stress and uncertainty, often stems from fears related to contracting Covid-19, the overwhelming responsibility of patient care, and concerns about adequate personal protective equipment (PPE) (Cinar, 2021; Thakur & Jain, 2022). Moreover, the non-supportive work environment in hospitals has been a major contributing factor to this anxiety. Studies reveal that lack of administrative support, inadequate mental health resources, and insufficient rest periods exacerbate stress among healthcare workers, leading to higher levels of anxiety and burnout (Ghahramani, Lankarani, Yousefi, & Heydari, 2023). Addressing these issues requires an examination of workplace dynamics and the provision of a supportive work culture where house officers feel valued and protected. Non-supportive work environments,

characterized by a lack of communication, resources, and emotional support, further aggravate stress levels, preventing healthcare workers from performing their duties effectively (Dall'Ora, Ball, & Griffiths, 2022).

Additionally, the sense of uncertainty prevalent during the pandemic intensified the psychological strain on house officers. The unpredictability of the virus's progression, coupled with the evolving guidelines for treatment and patient care, created an atmosphere of constant uncertainty. This lack of control and clarity contributed to increased stress and anxiety among house officers, who were often left to navigate these complexities without sufficient guidance or support (Jha, Davies, & Beynon, 2023). Research has shown that uncertainty, particularly in high-stakes environments like healthcare, is a significant source of stress, leading to impaired decision-making and emotional fatigue (Schluger, 2022). This highlights the need for clear communication and structured support systems to mitigate the effects of uncertainty on healthcare workers.

Given the increased psychological burden on house officers during the Covid-19 pandemic, a comprehensive investigation into stress levels among house officers in Negeri Sembilan is crucial. Current research gaps, particularly in understanding the specific stress factors and their impact on healthcare delivery, must be addressed. While earlier studies, such as those by Mohd Fauzi, Muhamad Robot, and Mat Saruan (2020), focused on the general effects of the pandemic on healthcare workers, there remains a lack of data on the specific experiences of house officers in district and state hospitals. Newer studies suggest that targeted interventions, such as mental health support programs and modifications in the work environment, could significantly reduce stress and improve overall well-being (Thakur & Jain, 2022; Ghahramani, Lankarani, Yousefi, & Heydari, 2023). Therefore, exploring these factors in the

context of Negeri Sembilan is vital for developing evidence-based strategies to support house officers during and beyond the pandemic.

In conclusion, the rise in stress levels among house officers, exacerbated by burnout, anxiety, a non-supportive work environment, and uncertainty, highlights the need for targeted research and interventions. It is essential to investigate the psychological toll on house officers in Negeri Sembilan, as the findings could inform strategies to reduce stress and enhance the overall healthcare system's resilience. More recent studies underline the necessity of addressing these issues promptly to prevent long-term psychological harm and ensure the sustainability of the healthcare workforce (Jha,2023).

1.3 Purpose of the Study

The study aimed to determine the impact of the Covid-19 pandemic on the stress levels of house officers in Negeri Sembilan, as well as to gain insights from health professionals regarding the factors affecting their mental well-being due to Covid-19. Employing an integrated mixed-method study design, the researcher investigated the mental health factors and experiences of Malaysian healthcare professionals who worked in hospitals at the state or district levels in Negeri Sembilan during the Covid-19 pandemic. The research objectives were formulated based on the study's purpose.

1.4 Research Objectives

- i. To investigate the relationship of personal burnout on the stress level of house officers in managing patients' care
- ii. To identify the relationship of anxiety on the stress level of house officers in the state and district hospitals of Negeri Sembilan, Malaysia

- iii. To evaluate the relationship of a non-supportive work environment on the stress level and duty of house officers in managing patients
- iv. To evaluate the relationship of uncertainty in the environment on the stress level and duty of house officers in managing patients.

1.5 Research Question

- i. What was the impact of personal burnout on the stress level among house officers in managing patients' care?
- ii. How anxiety affects the stress level of house officers in the state and district hospitals of Negeri Sembilan, Malaysia?
- iii. What is the relationship of a non-supportive work environment on the stress level of house officers in managing patients?
- iv. How is the relationship of uncertainty in the environment on the stress level and duty of house officers in managing patients?

1.6 Statement of Hypotheses

H1: There is a significant relationship between personal burnout and the stress level among the house officers working in Negeri Sembilan

H2: There is a significant relationship between anxiety and the stress level among the house officers working in Negeri Sembilan

H3: There is a significant relationship between the non-supportive work environment and the stress level among the house officers working in Negeri Sembilan

H4: There is a significant relationship between uncertainty in the environment and the stress level among the house officers working in Negeri Sembilan.

Table 1.1: Summary of the alignment of the problem statement, research objectives, research questions, and hypotheses

No	Problem Statement	Research Objective	Research Questions	Hypotheses
1.	Stress levels among house officers are increasing due to unknown leading stress factors and unfavorable work conditions.	Investigate the impact of the Covid-19 pandemic on the stress levels of house officers in Negeri Sembilan.	i. What was the impact of personal burnout on the stress level among house officers in managing patients' care?	H1: There is a significant relationship between personal burnout and the stress level among the house officers working in Negeri Sembilan.
2.		Identify factors affecting the mental well-being of health professionals due to Covid-19.	ii. How anxiety affects the stress level of house officers in the state and district hospitals of Negeri Sembilan, Malaysia?	H2: There is a significant relationship between anxiety and the stress level among the house officers working in Negeri Sembilan.
3.		Investigate the relationship between a non-supportive work environment and stress levels among house officers.	iii. What is the relationship of a non-supportive work environment on the stress level of house officers in managing patients?	H3: There is a significant relationship between the non-supportive work environment and the stress level among the

4.			iv. How is the relationship of uncertainty in the environment on the stress level and duty of house officers in managing patients?	house officers working in Negeri Sembilan. H4: There is a significant relationship between uncertainty in the environment and the stress level among the house officers working in Negeri Sembilan.
5.	Few recent studies have addressed stressors among house officers, and there is a lack of research on how unfavorable conditions contribute to stress among them.	Evaluate the impact of uncertainty in the environment on stress levels and duties of house officers. Employ an integrated mixed-method study design to investigate mental health factors and experiences of healthcare professionals in Negeri Sembilan during Covid-19.		

The table 1.1 presents a structured outline of a research proposal investigating the stress levels among house officers in Negeri Sembilan, Malaysia, particularly in the context of the Covid-19 pandemic. The research is organized into five problem statements, each corresponding to specific research objectives, questions, and hypotheses.