THE INFLUENCE OF INADEQUATE STAFFING AND HEALTH PROBLEM ON ABSENTEEISM AMONG ASSISTANT MEDICAL OFFICERS IN KUALA LUMPUR

MOHAMMAD RAZMANI BIN CHE RASHID

MASTER OF SCIENCE (OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT)

UNIVERSITI UTARA MALAYSIA

JULY 2024

THE INFLUENCE OF INADEQUATE STAFFING AND HEALTH PROBLEM ON ABSENTEEISM AMONG ASSISTANT MEDICAL OFFICERS IN KUALA LUMPUR

BY

MOHAMMAD RAZMANI BIN CHE RASHID

Thesis Submitted to

College of Business

Universiti Utara Malaysia

In Fullfillment of the Requirement for the

Master of Science (Occupational Safety & Health Management)

Pusat Pengajian Pengurusan Perniagaan
SCHOOL OF BUSINESS MANAGEMENT
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ABSTRACT

Absenteeism among healthcare professionals, particularly Assistant Medical Officers (AMOs), poses serious challenges to hospital operations, staff morale, and the quality of patient care. Absenteeism can negatively affect the quality of patient care, disrupt workflow and increase the workload for the remaining staff. This study aims to identify factors contributing to absenteeism among AMOs at Hospital Kuala Lumpur, with particular emphasis on inadequate staffing, and personal health difficulties. A quantitative, cross-sectional research design was adopted and data were collected using a self-administered questionnaire. A total of 249 questionnaires were distributed to AMOs from 25 clinical departments in Hospital Kuala Lumpur, representing 100% response rate. The data were analysed using descriptive statistics, correlation, and multiple linear regression. Both variables, including inadequate staffing and personal health issues, reported strong positive and statistically significant relationships with absenteeism, with inadequate staffing emerging as the most influential predictor (β = 0.961), followed by personal health issues (β = 0.958). The findings highlighted the urgency for targeted interventions, such as mental health support, improved staffing policies, and wellness initiatives to address the root causes of absenteeism. This research contributes to the limited literature on AMO absenteeism in Malaysia and provides hospital administrators and policymakers with evidence-based insights to improve workforce management and enhance the continuity and quality of healthcare services.

Keywords: absenteeism, healthcare workers, inadequate staffing, personal health issues

ABSTRAK

Ketidakhadiran dalam kalangan profesional penjagaan kesihatan, khususnya Penolong Pegawai Perubatan (PPP), menimbulkan cabaran besar terhadap operasi hospital, semangat kakitangan, dan kualiti penjagaan pesakit. Ketidakhadiran boleh memberi kesan negatif terhadap kualiti penjagaan pesakit, mengganggu aliran kerja dan meningkatkan beban kakitangan yang masih bertugas. Kajian ini bertujuan untuk mengenal pasti faktor-faktor yang menyumbang kepada ketidakhadiran dalam kalangan PPP di Hospital Kuala Lumpur, dengan penekanan khusus terhadap kekurangan kakitangan, dan masalah kesihatan peribadi. Reka bentuk kajian kuantitatif secara keratan rentas telah dijalankan dan data dikumpul melalui borang soal selidik yang dikendalikan sendiri oleh responden. Sebanyak 249 borang soal selidik telah diedarkan kepada PPP daripada 25 jabatan klinikal di Hospital Kuala Lumpur, mewakili kadar maklum balas sebanyak 100%. Data telah dianalisis menggunakan statistik deskriptif, analisis korelasi, dan regresi linear berganda. Kedua-dua pemboleh ubah kekurangan kakitangan dan masalah kesihatan peribadi menunjukkan hubungan positif yang kuat dan signifikan secara statistik dengan ketidakhadiran, di mana kekurangan kakitangan merupakan peramal paling dominan ($\beta = 0.961$), diikuti oleh masalah kesihatan peribadi ($\beta = 0.958$). Penemuan ini menekankan keperluan segera untuk melaksanakan intervensi yang bersasar seperti sokongan kesihatan mental, penambahbaikan dasar pengambilan kakitangan, dan inisiatif kesejahteraan bagi menangani punca utama ketidakhadiran. Kajian ini menyumbang kepada kekurangan literatur berkaitan ketidakhadiran PPP di Malaysia dan memberikan panduan berasaskan bukti kepada pihak pengurusan hospital dan pembuat dasar dalam usaha menambah baik pengurusan tenaga kerja serta meningkatkan kesinambungan dan kualiti perkhidmatan penjagaan kesihatan.

Kata Kunci: ketidakhadiran, pekerja penjagaan kesihatan, kekurangan kakitangan, masalah kesihatan peribadi

ACKNOWLEDGEMENT

Alhamdulillah by the grace of Allah SWT, I have successfully completed this thesis within the allotted deadline. I anticipate that this thesis will enhance the understanding of occupational safety and health management among all readers, specifically within the framework of healthcare organisations in Malaysia.

I wish to convey my profound admiration and gratitude to Dr. Nurul Syazwani Binti Ahmad Sabri, my supervisor and advisor. Her extensive expertise, direction, and perceptive critiques were vital to this project. Her insightful critique and steadfast commitment were vital in the effective completion of this thesis.

I desire to express my profound thanks to my esteemed parents, Mrs. Rogayah Binti Ab Wahab and Mr. Che Rashid Bin Hamat. Their unwavering patience, limitless support, and comprehension have provided strength during this arduous academic journey.

Special thanks is extended to Ts. Dr. Khairul Hafezad for his important assistance and instruction, which were pivotal in the completion of this research. His thoughts and knowledge have greatly enhanced my comprehension and growth in this domain.

I would like to express my heartfelt gratitude to my friends who offered both direct and indirect support during this research. Their encouragement, counsel, and drive have been a source of strength, and I profoundly value their friendship throughout this journey. I would want to express my gratitude to the university for permitting me to perform this research. This research has been successfully performed with the supplied collaboration.

Finally, I wish to convey my sincere appreciation to the teachers and personnel of Universiti Utara Malaysia for their expertise, advice, and steadfast support during my academic journey. Their contributions were essential in achieving this research. I am deeply appreciative of all persons, both acknowledged and unacknowledged, who contributed to the success of this research.

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LIST OF ABBREVIATIONS

AMO	Assistant Medical Officer
GANNT	Gantt Chart
MOH	Ministry of Health
MSD	Musculoskeletal Disorder
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
PPP	Penolong Pegawai Perubatan
SD	Standard Deviation
SOP	Standard Operating Procedure
WHO	World Health Organization
SPSS	Statistical Package for the Social Sciences

CHAPTER ONE

INTRODUCTION

1.1 INTRODUCTION

Absenteeism among healthcare workers is a growing concern worldwide, particularly in resource-constrained healthcare systems. It disrupts service delivery, increases workloads for present staff, and compromises patient care quality. Various factors contribute to absenteeism, including job-related stress, poor working conditions, lack of organizational support, and personal health issues. In the healthcare setting, the physical and emotional demands of the job can further exacerbate these challenges. Comprehending the fundamental causes of absenteeism is crucial for formulating targeted interventions that improve staff stability, productivity, and the overall efficiency of the healthcare system. This chapter presents an overview of the study's background, problem statement, research questions, research aims, significance, scope, definitions of important words, limitations, and dissertation structure.

1.2 BACKGROUND OF THE STUDY

Absenteeism is a pervasive issue in many industries, but it poses particularly significant challenges in the healthcare sector (Fond et al., 2024). The unpredictable nature of healthcare demands, coupled with the emotional and physical toll on workers, makes understanding absenteeism critical for maintaining high-quality patient care and operational efficiency. In recent years, the issue of absenteeism among healthcare

workers has garnered increased attention due to its implications for patient outcomes, healthcare costs, and workforce stability (Al Ismail et al., 2023).

In 2018, the Organisation for Economic Cooperation and Development (OECD) reported that Slovenia experienced the highest incidence of lost days owing to sickness absenteeism, averaging between 10.0 and 10.8 days per individual year from 2014 to 2017. Subsequently, Canada saw 7.4 to 8.0 days of lost time per individual annually, whereas the UK reported considerably lower figures of 2.1 to 2.2 days lost per individual per year during the same year (Kwon, 2020). In contrast, Malaysia has seen a rising trend in absenteeism due to sickness. A report from Malaysia Employer Federation (MEF) indicated that the average number of worker absences in Malaysia more than doubled, increasing from 2.35 days in 2015 to 4.32 days in 2016 (Malaysian Employers Federation , 2016). This comparison is illustrated in Figure 1.1.

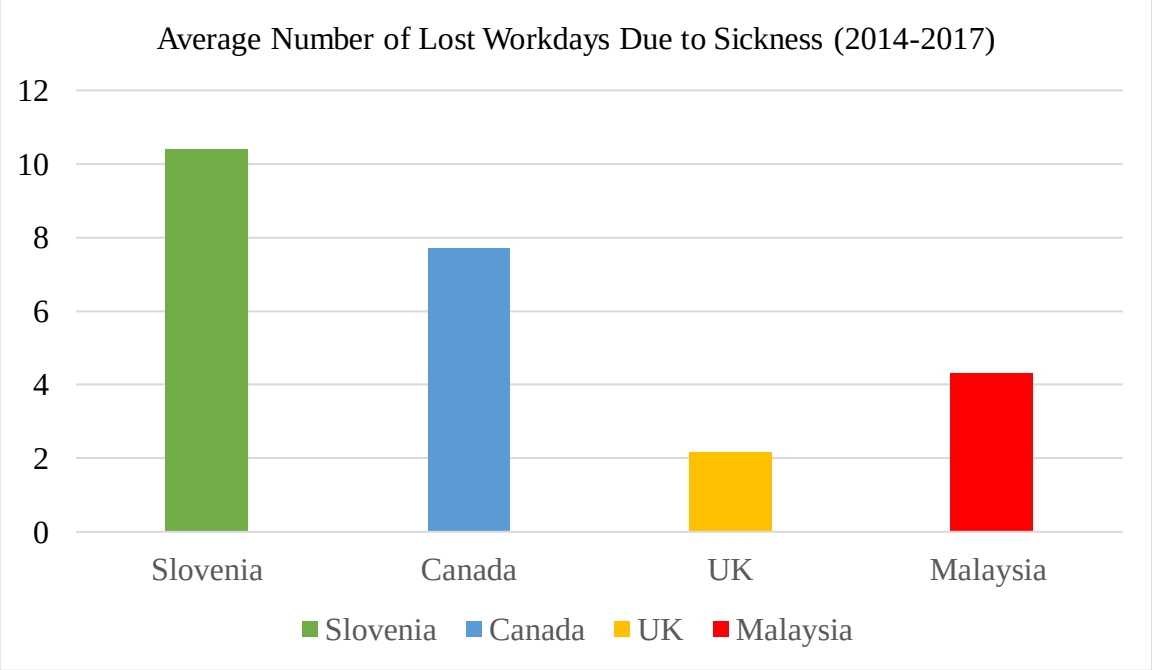

Figure 1.1

Average Number of Lost Workdays Due to Sickness in Selected Countries (2014–2017)

Source: OECD (2018); Malaysian Employers Federation (2016).

Assistant Medical Officers (AMOs) plays crucial role in Malaysian healthcare, providing an essential link between doctors and nurses. They work in public hospitals, clinics, and rural health facilities, performing clinical and administrative work. Despite their importance, absenteeism among AMOs remains understudied and there is a noticeable gap in research on absenteeism among AMOs in Malaysia. While several studies have examined related issues such as burnout, sleep deprivation, and workplace stress among AMOs, few have directly investigated their patterns of sickness-related absenteeism. For example, a national study on shift-working AMOs revealed high levels of sleep deprivation and burnout but did not report on absenteeism rates. Another survey documented that nearly 44% of AMOs experienced significant work-related stress linked to conflicts and unclear job expectations, yet absenteeism was not a focus (Nursyahda Z et al., 2022). Although broader studies have quantified sickness absence among the general Malaysian public sector workers. there remains a lack of targeted research examining how often AMOs miss work due to illness and what drives this within their unique roles. This is particularly concerning because absenteeism not only reflects underlying workplace issues but also reinforces them, leading to a cycle that affects organizational culture, staff morale, and the quality of patient care.

Global studies have highlighted that absenteeism is often driven by factors such as organizational culture, poor work-life balance, and inadequate administrative policies**.** Among AMOs, absenteeism places additional burdens on the remaining workforce, resulting in increased workload, stress, and dissatisfaction. Over time, these pressures can foster a negative work environment marked by burnout and

frustration, which in turn further undermines teamwork, productivity, and overall organizational effectiveness (Zhang et al., 2024).

According to Paiva, Dalmolin and Santos (2021), a study on sick leave among healthcare workers (HCWs) in southern Brazil's hospitals reported that frontline personnel often endure physical and psychological pressures. Nursing and support personnel had high absenteeism owing to musculoskeletal, respiratory, and mental health difficulties. Physical strain is primarily caused by the high-stress environment, prolonged standing, and frequent patient handling, while respiratory ailments are exacerbated by exposure to infectious agents. Psychological pressures, including depression, and anxiety, are common due to overwhelming schedules and emotional demands. This pattern of absenteeism increases workloads, lowers care quality, and strains hospital resources. Similarly, Sabzi et al. (2024) noted the role of poor staffing, job dissatisfaction, and chronic fatigue in increasing nurse absenteeism. While absenteeism among AMOs is a significant concern, specific research focusing on AMOs in Malaysia remains limited. The Public Officers (Conduct and Discipline) Regulations 1993 in Malaysia outline the public officers' procedures and disciplinary actions for dealing with unexplained absences, but no strategic initiatives exist to address root causes. Understanding the multifaceted causes of absenteeism, particularly inadequate staffing, and personal health issues, can inform more effective, tailored interventions to support this vital healthcare workforce.

1.3 PROBLEM STATEMENT

Assistant Medical Officers (AMOs) play an essential role in the Malaysian healthcare system, especially as frontline providers in underserved and rural areas.

They perform both clinical and administrative duties and are instrumental in ensuring efficient and continuous care delivery (Alias Mahmud, 2024). However, they face mounting challenges that affect their ability to perform effectively, including high workloads, emotional strain, and physical exhaustion.

Absenteeism among AMOs is becoming increasingly prevalent and problematic. It disrupts workflow, burdens colleague, reduces productivity, and ultimately affects the quality of patient care. While absenteeism has been studied among broader public-sector health workers in Malaysia such as the 1995 Klang Valley survey that assessed sickness absence across government and private agencies and similar studies in other low-resource settings, this issue remains understudied, with very few published works focusing specifically on AMOs (SK Indran et al., 1995). The lack of targeted data limits understanding of the issue and the development of effective, AMO-specific interventions.

Inadequate staffing further worsens the situation. Malaysia currently employs about 23,329 AMOs, which is far below the projected requirement of 44,000 by 2025. This shortage forces the current workforce to work longer hours, take on multiple roles, and face frequent reassignments, often at the expense of essential services. Although the Ministry of Health introduced the AMO Profession Development Plan 2016–2030 (Pelan 6P) to achieve a 1:1,150 AMO-to-population ratio, the healthcare system is still expected to face a shortfall of AMOs, with an estimated 44,804 needed by 2025 to serve a population of 36 million (Sinar Harian , 2023). Similar staffing shortages are also reported in other low- and middle-income countries, such as Tanzania and Uganda (Prasad et al., 2022).

The COVID-19 pandemic magnified personal health factors contributing to absenteeism, as AMOs were required to perform high-risk duties such as swab collection, quarantine centre operations, and border surveillance. These roles, combined with emotional stress and limited recovery time, intensified absenteeism. Post-pandemic, many AMOs have voiced the need for more flexible scheduling and improved work-life balance. Without adequate support systems, these unmet needs may further increase absenteeism, as staff struggle to manage personal and professional responsibilities (Bernama, 2022).

Despite these growing concerns, absenteeism among AMOs in Malaysia remains an underexplored topic. Inadequate staffing, and personal health issues appear to be key contributing factors, especially among those working night and shift duties. However, there is a lack of research that specifically investigates how these factors affect AMOs (SK Indran et al., 1995). Therefore, this study aims to fill that gap by examining the relationship between staffing adequacy, and personal health factors with absenteeism among AMOs in Malaysia. A deeper understanding of these issues can inform evidence-based strategies to improve working conditions, reduce absenteeism, and enhance the efficiency and sustainability of Malaysia's healthcare system.

1.4 RESEARCH QUESTION

a) Is there any relationship between inadequate staffing and absenteeism among Assistant Medical Officer in Hospital Kuala Lumpur?
b) Is there any relationship between personal health issue and absenteeism among Assistant Medical Officer in Hospital Kuala Lumpur?

1.5 RESEARCH OBEJCTIVE

a) To identify the relationship between inadequate staffing and absenteeism among Assistant Medical Officer in Hospital Kuala Lumpur
b) To identify the relationship between personal health issue and absenteeism among Assistant Medical Officer in Hospital Kuala Lumpur.

1.6 SCOPE OF THE STUDY

The scope of the study was to study factors that influence absenteeism, such as inadequate staffing and personal health issues among the Assistant Medical Officer who works at Hospital Kuala Lumpur only. These two variables were selected as the strongest factor affecting absenteeism based on previous literature studies at hospitals in other countries. Hospital Kuala Lumpur was selected due to the workforce of over 440 people by Assistant Medical Officers, which is the highest number of Assistant Medical Officers in this hospital compared to other hospitals in Malaysia. Hospital Kuala Lumpur also serves as Malaysia's main referral hospital for the country.

1.7 SIGNIFICANCE OF THE STUDY

This study investigates the factors influencing absenteeism among Assistant Medical Officers (AMOs) in Hospital Kuala Lumpur, focusing on inadequate staffing and personal health issues. While absenteeism in the healthcare sector is widely studied, particularly among doctors and nurses, research specifically targeting AMOs remains limited. AMOs are often grouped within broader healthcare categories, which overlook their unique challenges. Yet, like other healthcare workers, they face stress and exposure to illnesses that contribute to absenteeism.

Understanding absenteeism among AMOs is crucial for improving Malaysia's healthcare system, in line with the Ministry of Health's priorities. High absenteeism disrupts workflows, reduces service quality, and increases operational costs due to the need for temporary staffing or workload redistribution. By identifying the root causes such as work-related stress or poor work-life balance this study can support more efficient workforce management and cost-effective healthcare delivery without compromising service standards (Ministry of Health Malaysia, 2021).

Findings from this research can inform targeted interventions to reduce AMO absenteeism, such as mental health support, flexible scheduling, and better staffing policies. Lower absenteeism enhances patient care, reduces medical errors, and improves overall patient satisfaction. The study will offer valuable insights for hospital management and policymakers, helping them develop effective strategies to support AMOs and strengthen healthcare delivery nationwide.

1.8 DEFINITION OF TERMS

I. Assistant Medical officer.

A medical assistant provided curative, promotive, preventive and rehabilitative health services using the competent knowledge and skill of medical and health service program (Medical Assistant Services, 2019) .

II. Absenteeism

Absenteeism refers to frequent or habitual absence from work, often unplanned, which can disrupt services and indicate issues like stress, poor health, or job dissatisfaction (Kenton, 2024).

III. Inadequate staffing

Inadequate staffing means having too few healthcare workers to meet patient needs, leading to overwork, stress, and reduced care quality (Katrina, 2020)

IV. Personal health issue

Personal health issues are physical or mental conditions that affect a person's ability to attend or perform at work, such as illness, injury, or stress-related problems. (Raza, 2023)

1.9 THE ORGANIZATION OF THE DISSERTATION

This dissertation is organized into five chapters. Chapter one introduces the study, covering the background, problem statement, research questions, objectives, scope, key terms, and structure of the thesis.

Chapter two presents a literature review on the factors influencing absenteeism among AMOs between the related variables and theories.

Next, chapter three outlines the methodology used to achieve the study objectives and answer research questions detailing processes such as initial planning, data collection, and data analysis.

Chapter four reports the findings from the survey, analyzed both descriptively and inferentially. These results are presented using graphs, diagrams, and tables to clearly present the research findings.

Finally, chapter five summarizes the overall findings and discusses the results of the study, including conclusions and contributions to the field. Suggestions for

future research and recommendations to decrease absenteeism among AMOs are also discussed in this chapter.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter describes the literature review on inadequate staffing, personal health issues and absenteeism. It will also discuss the research framework and hypothesis development for this study.

2.2 ABSENTEEISM

2.2.1 Overview of absenteeism

Christopher (2023) define that absenteeism refers to the habitual or unexpected absence of employees from work, significantly impacting productivity, work quality, and overall organizational functioning. It can reduce productivity, affect team morale, and increase the workload for other employees. Unplanned absenteeism in healthcare often disrupts patient care and puts additional strain on remaining staff. It can be divided into several types based on the underlying causes, which include medical certificate (MC), emergency leaves(EL), mental health absences and children or dependent care. Namasudra et al. (2023) define that medical certificates are crucial for accessing health benefits, such as insurance claims and legal protections. They serve as official documentation of a patient's health status, often required by employers or legal entities. Unplanned absences due to health issues are frequently substantiated by medical certificates and stem from various acute and chronic health conditions. Common acute illnesses, such as respiratory and gastrointestinal infections, lead to

time off for recovery and to prevent the spread of contagious diseases in healthcare environments (Gianino et al., 2021).

Next, the other unplanned absences is emergency leave. Emergency leave is specifically designated for situations that arise unexpectedly, often with no prior notice. This leave is typically intended for urgent matters like sudden illness, injuries, or family emergencies, requiring employees to leave work immediately or skip their scheduled shifts (Stafford et al., 2022). Employees may need to take immediate leave due to acute illness or injury. This could include severe conditions such as food poisoning, an unexpected fall, or sudden severe symptoms of chronic health issues like asthma or diabetes. Besides, Family emergencies like a sudden death, a child's medical emergency, or an elderly relative's urgent health issue often require healthcare employees to take immediate leave (Cobb, 2021).

Mental health crises are a growing cause of unplanned absenteeism in healthcare, with a significant rise in mental health-related leaves. Mayer (2024) state that in 2023, such absences increased by 33% compared to the previous year, with a 300% surge from 2017 to 2023. This alarming trend reflects the increasing pressure on healthcare workers, compounded by the strains of the COVID-19 pandemic and the ongoing challenges within the healthcare system. Workers face stress and psychological exhaustion, often exacerbated by high workloads, emotional strain, and harassment. The stigma surrounding mental health issues in healthcare settings, along with insufficient support, has made it harder for staff to seek help (CDC, 2023).

Emergency absences in healthcare settings may often be caused by the need for sudden child or dependent care. Employees might face situations where they must unexpectedly care for a sick child, elderly relative, or other dependent family members, leading to unplanned leave. These instances may include cases such as a child's illness, a parent's sudden medical emergency, or even the breakdown of regular care arrangements (C. Fong and Larocci, 2020). Given the growing responsibilities of caregivers, especially among healthcare workers, this can lead to significant disruptions in attendance. Under U.S. law, the Family and Medical Leave Act (FMLA) provides job-protected leave for employees needing to care for family members with serious health conditions, including children or dependent relatives (Family, H. R., 2023).

2.2.2 Factors contributing to absenteeism in healthcare

Ms.S Srichandana (2023) state that organizational policies significantly affect absenteeism by influencing factors such as job insecurity, strict control systems, and lack of supervisory support. A poor work environment and inadequate welfare conditions can also contribute to higher absenteeism rates among employees. Leave policies, support for health and well-being, flexible scheduling, and disciplinary measures all significantly impact absenteeism. Policies governing sick leave, paid time off, and family leave can affect attendance, especially in organizations with strict allowances where employees may feel pressured to work when unwell, potentially leading absenteeism. Conversely, policies promoting physical and mental health through access to counseling services, health benefits, and wellness programs can help reduce absenteeism by supporting employees in managing stress. Flexible scheduling options also tend to lower absenteeism by improving work-life balance and reducing

stress. Meanwhile, overly strict disciplinary policies on absenteeism can backfire, increasing stress and encouraging presenteeism rather than addressing underlying issues. Supportive and understanding policies create a culture where employees feel respected and valued, ultimately reducing absenteeism.

Yansen et al. (2022) indicates that the work environment has a positive and significant effect on employee performance, suggesting that improvements in the work environment may reduce absenteeism, although it does not explicitly state the direct relationship between work environment and absenteeism. Inadequate staffing, physical work conditions, and excessive job demands are major contributors to absenteeism in healthcare. Low staffing levels increase workloads, leading to stress-related health issues and fatigue, which creates a cycle where employees call in sick more frequently, further worsening staffing shortages. The physically demanding nature of healthcare work, combined with the need for constant alertness, means that an unsupportive or hazardous work environment such as uncomfortable workstations or a lack of necessary equipment can also cause health issues and drive up absenteeism. Additionally, excessive workload in understaffed settings often leads to chronic stress and fatigue, prompting overworked employees to take time off to recover both physically and mentally.

Dehghanan et al. (2022) define that organizational culture is one of the factors affecting employee presenteeism, along with other factors such as job characteristics, human resources management, and individual characteristics. Attitudes toward absenteeism, team support, and commitment to employee well-being play crucial roles in shaping attendance behavior in healthcare settings. In workplaces where

absenteeism is stigmatized or employees feel judged for taking time off, presenteeism often increases leading to higher absenteeism rates. Conversely, a culture that fosters teamwork, respect, and empathy helps reduce stress-related health issues, as positive relationships among coworkers create a sense of belonging, making employees more likely to attend regularly and support one another. Additionally, organizations that prioritize employee well-being and demonstrate genuine concern for work-life balance generally see lower absenteeism, as employees who feel valued and supported are less likely to experience stress-related health issues and more likely to maintain consistent attendance.

Brady et al. (2023) state that ageing, health status, and life phase significantly impact sick leave in healthcare settings, with gender and life phase also influencing absenteeism rates. Demographics, including socioeconomic status and cultural background, play a significant role in absenteeism. Employees from lower socioeconomic backgrounds may experience added stressors, such as financial strain, which can worsen health issues and lead to higher absenteeism rates. Limited access to healthcare resources may also result in untreated health conditions that impact attendance. Cultural background further influences attendance behaviors, as cultural norms may dictate prioritizing family obligations over work, leading to increased absenteeism in some cases, while in others, a strong emphasis on presenteeism may drive employees to work even when unwell.

Ilić et al. (2021) state that age influences absenteeism in distinct ways across different age groups. Younger workers, particularly those early in their careers, may experience higher absenteeism due to job stress and limited experience in handling

workplace demands, although they generally have fewer health-related absences than older workers. Middle-aged employees often face family responsibilities, such as caring for children or elderly parents, contributing to intermittent attendance, and may also encounter health challenges that increase absenteeism. Older workers, while more likely to experience chronic health issues leading to higher absenteeism, may also show a stronger commitment to attendance due to accumulated work experience, job stability, and a sense of duty.

Ogbozor et al. (2022) state that gender plays a significant role in absenteeism patterns, with female employees often experiencing higher absenteeism rates due to caregiving responsibilities for children or aging family members. Women are also more likely to report health issues related to stress, anxiety, and depression, which can contribute to absenteeism, particularly in high-stress environments. Male employees, while facing similar stressors, may be influenced by societal expectations around masculinity and strength, leading to a tendency toward presenteeism even when unwell. However, men may also experience absenteeism linked to job dissatisfaction and work-life balance concerns.

Mayfield and Qing Ma (2020) state that job satisfaction fully mediates the relationship between creative environment and absenteeism, indicating that higher job satisfaction can lead to lower absenteeism among noncreative specialist workers, as demonstrated in the study's findings. Higher job satisfaction tends to correlate with lower absenteeism. Healthcare workers who feel valued, supported, and fulfilled in their roles are more likely to maintain consistent attendance. Satisfied employees are often more engaged, have stronger morale, and are less likely to feel the need for

unplanned absences. Conversely, low job satisfaction can lead to higher absenteeism, as employees may feel less committed to their roles and experience more frequent stress or frustration that can contribute to absenteeism.

Excessive workload is a common issue in healthcare, particularly in settings facing staffing shortages. When workloads are high, healthcare workers are at greater risk of stress-related health issues, which is a significant contributor to absenteeism. From Carneiro Lucas et al. (2024) findings, working an additional hour increases physical overload by 42%, leading to 7.62 leave requests per year and 78.7 days of absenteeism. Proper workload management and adequate recovery time are essential to mitigate absenteeism in the healthcare. Heavy workloads increase physical and mental fatigue, making it difficult for employees to sustain regular attendance. This can create a vicious cycle where high workloads lead to more absences, which further increases the workload for those still present, perpetuating the problem.

Zhang et al. (2023) state that job demands directly and positively influence implicit absenteeism. Additionally, they indirectly affect absenteeism through the mediating effects of work–family conflict and job embeddedness, highlighting the complex relationship between job demands and absenteeism. The inherent demands of healthcare jobs, including physical strain, emotional stress, and the need for high alertness, can increase absenteeism. Healthcare workers often face emotionally taxing situations and high-stakes responsibilities, which can lead to mental and physical exhaustion. High job demands without adequate support or recovery time can result in stress-related health issues and increased absenteeism as employees may require time off to recuperate.

2.2.3 Consequences of absenteeism in healthcare settings

The absenteeism issue can effect on patient care quality which is can increased workload for remaining staff. Štarc and Fabjan (2023) state that increased absenteeism leads to a higher workload for remaining nursing staff, negatively impacting their mental, physical, and social health. This situation can result in further turnover, exacerbating staffing issues and compromising the quality of healthcare provided. When healthcare workers are absent, the remaining staff often face higher workloads and must cover for their colleagues. This can lead to fatigue, increased stress, and a higher likelihood of errors or oversights, directly affecting patient safety and quality of care. Others can reduced continuity of care. Reduced continuity of care due to absenteeism can hinder effective treatment, disrupt patient-provider relationships, and lead to wasted healthcare resources. Addressing absenteeism through health technologies is essential for maintaining consistent care and improving overall health outcomes for individuals and communities (Pires et al,. 2024). Absenteeism disrupts continuity, especially if patients are familiar with specific caregivers. When staff are frequently absent, it becomes challenging to maintain consistent care plans and relationships, which can impact the quality of care provided. Serra-Campos et al. (2024) state that delayed or incomplete treatments also can happen. The study indicates that clinic absenteeism leads to delayed treatments, as missed chemotherapy cycles contribute to longer waiting lists and inefficient use of public resources. Implementing confirmation calls or texts could mitigate these delays and improve treatment adherence.

Patient satisfaction also one impact of the absenteeism issue. Nwagbara et al. (2024) state that longer wait times in healthcare systems are often exacerbated by

absenteeism among staff, leading to reduced access to care. This issue is particularly pronounced in primary healthcare facilities, where factors such as staff shortages and ineffective administrative systems contribute to prolonged waiting periods. Absenteeism also can lead to extended wait times in emergency rooms, clinics, or even within inpatient settings, as fewer healthcare workers are available to attend to patients. This waiting time often reduces patient satisfaction, especially when they feel neglected or perceive a lack of efficient service. Zhang et al., (2021) state that health worker absenteeism significantly reduces the quality of patient care by decreasing formal care-seeking and increasing reliance on informal outlets, which often provide lower quality care. This shift can lead to inadequate treatment and higher financial burdens for households. Overworked staff may be less able to provide compassionate and attentive care. Patients notice when staff are hurried or stressed, which can reduce their satisfaction and trust in the healthcare facility. Viswanath, et al. (2022) state that data absenteeism leads to impaired communication by limiting the representation of vulnerable populations in research. This absence results in questionable inferences, affecting the quality of science and health communication, and perpetuating inequities in understanding and addressing their needs. Effective communication is crucial to patient satisfaction, and absenteeism can disrupt this. As an example new or replacement staff might be unfamiliar with specific patients' needs, leading to communication gaps, frustration, and feelings of being misunderstood by patients.

Others effect on absenteeism is can increase costs which is have to hiring temporary staff or paying overtime. Absenteeism often necessitates hiring temporary or agency staff, who generally cost more than regular employees due to agency fees and premium rates. Additionally, healthcare facilities may need to offer overtime to

existing staff to cover shifts, increasing payroll expenses. These measures can quickly strain budgets. Hiring temporary staff incurs additional costs, while paying overtime can lead to increased employee fatigue and stress-related health issues, affecting long-term productivity (Tidjani et al., 2024). Absenteeism can increase workflow disruptions which is reduced coordination among teams. Hoey et al. (2023) state that absenteeism leads to reduced coordination among teams as remaining workers experience decreased productivity due to the absence of coworkers. This disruption affects teamwork dynamics, resulting in indirect production losses, particularly when complementary tasks are involved. Healthcare requires a high level of coordination among multiple providers, including doctors, nurses, therapists, and support staff. When team members are absent, the flow of communication and coordination can break down, leading to delays, errors, or duplicated efforts in patient care. Absenteeism also can effect on resource allocation which is impact on staff training and professional development. When staff members are frequently absent, available resources are often allocated toward maintaining current staffing levels rather than focusing on development. Tidjani et al. (2024) state that absenteeism negatively impacts staff training and professional development by creating understaffing, which hinders the ability to conduct training sessions and support employee growth. This can lead to decreased productivity and a lack of professional development opportunities for remaining staff. Training sessions, skill-building workshops, or cross-departmental development may be postponed, limiting staff's long-term professional growth and potentially impacting the quality of patient care.

Team dynamics and morale can appear when absenteeism occur which are increases workload for others, and potentially lowers team morale. Christopher (2023)

state that absenteeism increases the workload for remaining employees, leading to heightened stress. When team members are absent, their responsibilities are typically redistributed among the remaining staff, leading to an increased workload for those present. This redistribution often means longer shifts, reduced downtime, and added physical and mental strain as staff manage both their own duties and the additional tasks of absent colleagues. In high-stress settings like emergency rooms or intensive care units, this intensified workload can be particularly taxing, contributing to stress-related health issues and impacting staff well-being. Over time, the compounding pressure from covering for absent teammates can strain team morale and compromise the quality of patient care. Next, increased workloads and the pressure to uphold high-quality care standards when covering for absent colleagues can elevate stress levels among remaining staff. This sustained strain not only diminishes team morale but also negatively impacts job satisfaction, as staff may feel undervalued and overwhelmed. A study among healthcare workers revealed that 55.2% reported burnout, with 20.5% experiencing absenteeism. Poor sleep was a significant factor, with those suffering from it being 2.15 times more likely to report burnout and 1.49 times more likely to be absent (Fond et al., 2024). Over time, the effects of burnout can contribute to further absenteeism, perpetuating a vicious cycle that exacerbates staffing shortages and places additional strain on those who are present, ultimately affecting both the team's well-being and the quality of patient care.

2.3 INADEQUATE STAFFING

2.3.1 Overview of inadequate staffing

Inadequate staffing refers to staffing levels that fall below the minimum necessary to ensure patient safety and quality of care, often due to financial constraints or workforce shortages (International Council of Nurses, 2019). This situation occurs when the number of available personnel does not meet the required needs, leading to overburdened staff, which can compromise both employee health and patient safety (World Health Organization, 2020). Indicators of inadequate staffing in healthcare include a high patient-to-staff ratio, increased overtime, and frequent double shifts. Lasater et al. (2021) state that a high patient-to-staff ratio, especially among AMO's, often signals insufficient staffing, as healthcare workers have less time per patient, which can decrease quality of care and increase the risk of errors and adverse outcomes. When AMOs are responsible for an excessive number of patients, they may find it challenging to provide the attention and thorough assessments each patient requires. This scenario often leads to rushed consultations, delayed responses to patient needs, and compromised continuity of care, as AMOs are forced to balance multiple priorities with limited time.

Excessive overtime hours also suggest a staffing shortage, as staff members are required to work beyond their regular hours due to insufficient coverage, which can lead to burnout and reduced job satisfaction, further worsening staffing issues (Dall'Ora et al., 2020). When healthcare workers are routinely asked to work beyond their standard hours, it reflects a lack of available staff to handle the ongoing demands, creating a cycle that exacerbates both short- and long-term staffing issues. In addition, frequent double shifts are a clear sign of inadequate staffing, as they heighten fatigue and the risk of stress-related health issues while impairing healthcare workers' performance, directly impacting patient safety (Chen et al., 2022). A double shift

typically involves working two consecutive shifts, often 16 hours or more, with little to no time for rest in between. This type of work schedule can lead to severe physical and mental fatigue, as workers are pushed beyond their typical endurance, depriving them of adequate rest and recovery.

2.3.2 Factors influencing inadequate staffing in healthcare

S. Babcock (2023) says inadequate staffing can result from overburdened work environments, insufficient resources, and client dissatisfaction. Overburdened work environments, where employees are tasked with more responsibilities than they can reasonably handle, often stem from insufficient staffing. This scenario can occur when organizations are unable to recruit or retain enough personnel, leading to overworked staff who must compensate for the shortage by taking on additional tasks, extending their hours, or sacrificing their well-being. Aggarwal (2023) asserts that overwork, insufficient remuneration, substandard working conditions, and diminished morale contribute to inadequate staffing in urgent and emergency care. With limited staff, essential services may be delayed or compromised, which impacts patient outcomes and overall public health. When staff members are stretched thin due to excessive workloads or insufficient compensation, they may experience emotional exhaustion, and reduced job satisfaction. This, in turn, increases turnover rates and creates a cycle of understaffing, where the remaining workers are further overburdened, exacerbating the problem.

Sheffel et al. (2022) say many healthcare facilities in Sub-Saharan Africa are inadequately staffed, with adequate staffing levels further diminished by absenteeism, highlighting deployment and demand barriers as significant challenges. These factors

result in critical gaps in healthcare delivery, limiting access to essential services, especially for vulnerable populations. Addressing these challenges requires targeted policy reforms, improved incentives for healthcare workers, and innovative approaches to healthcare delivery to better align workforce deployment with regional health demands. Pires et al. (2024) state that inadequate staffing in healthcare can occur due to absenteeism, leading to reduced continuity of care and increased strain on remaining staff, ultimately affecting service delivery and patient outcomes. When healthcare workers are absent, continuity of care suffers, leading to delays in treatment, missed follow-ups, and inconsistent patient care experiences. This increased burden on available staff can lead to stress-related health issues, reducing overall productivity and quality of care.

High turnover rates in healthcare, exacerbated by budget constraints and hiring freezes, contribute significantly to staffing shortages. Financial limitations often prevent organizations from recruiting sufficient staff, leading to overburdened employees who are more likely to leave. The pandemic exacerbated this issue, with many healthcare workers retiring early, leaving the profession, or moving to higher-paying positions (A. Briones, 2022). With rising demand for services and insufficient resources, healthcare facilities often rely on costly temporary staffing solutions, which, while alleviating immediate needs, are not sustainable long-term. Budget cuts further hinder organizations' ability to maintain competitive wages or offer career advancement opportunities, fueling a cycle of burnout, reduced job satisfaction, and higher turnover (Experian Health, 2024). This crisis not only strains the workforce but also compromises patient care and operational efficiency, highlighting the need for sustainable solutions to attract and retain healthcare talent.

2.3.3 Impact of inadequate staffing

Role et al. (2021) assert that insufficient staffing adversely affects hospital operations, the quality of patient care, and employee engagement. Mitigating staffing shortages is essential for enabling hospitals to deliver high-quality care while fostering a healthy work environment for staff. Hospitals rely on sufficient staff to maintain patient safety, ensure timely care, and minimize the risk of medical errors. Research consistently shows that when staffing levels fall below optimal levels, patient outcomes suffer. For instance, understaffed units have higher rates of medication errors, delayed treatments, and preventable complications like infections. Hospitals that invest in appropriate staffing levels tend to see better patient safety, fewer medical errors, and a more engaged workforce. Implementing measures such as flexible staffing models, better retention strategies, and career development programs can help alleviate the pressure on staff while ensuring that patient care remains a top priority.

Ansah Ofei et al., (2021) says that healthcare workers are frustrated with inadequate staffing levels, especially in periphery hospitals, and suggest that time and compensation for additional duties be used as motivation. Limited resources in such settings exacerbate the issue, as they face a higher patient load with fewer staff, which increases the likelihood of stress-related health issues, job dissatisfaction, and turnover. In addition to physical and mental fatigue, healthcare workers report feeling undervalued due to the extra workload they're expected to handle without corresponding compensation or support. Idowu (2023) states that inadequate human resources in the health sector lead to grossly inadequate healthcare workers, affecting the performance of government establishments. This shortage hinders effective patient care, increases waiting times, and places immense pressure on the available medical

personnel, often leading to stress-related health issues and declining service quality. This shortage of healthcare workers is often more pronounced in public or government-run facilities, where funding, recruitment, and retention may be insufficient to meet growing demand. A lack of adequately trained and sufficient staff means that healthcare professionals are overburdened, leading to high levels of stress and job dissatisfaction. As a result, staff turnover increases, exacerbating the shortage and further compromising care quality.

Staffing shortages in healthcare environments profoundly affect the quality of patient treatment and the health and well-being of healthcare professionals. Research indicates that insufficient staffing levels are directly associated with adverse clinical outcomes, including heightened prescription mistakes, infections, and higher patient death (Garcia, 2023). For example, a shortage of nurses has been associated with higher rates of missed care, where vital tasks such as administering medication or performing patient assessments are delayed or neglected. This not only affects patient recovery and satisfaction but also escalates the risk of serious safety issues, including patient falls and pneumonia. Moreover, healthcare workers, particularly nurses, face heightened stress and burnout under these conditions. Chronic understaffing leads to longer shifts, increased fatigue, and physical injuries, such as musculoskeletal strain from patient handling (The Impact of Poor Staffing on Health and Safety for Healthcare Workers, 2022). Furthermore, fatigue and sleep deprivation caused by understaffing can impair cognitive function and increase the likelihood of errors. This vicious cycle of staff stress-related health issues and negative patient outcomes underscores the urgent need for appropriate staffing to maintain both worker health and high-quality patient care.

2.4 PERSONAL HEALTH ISSUE

2.4.1 Overview of personal health issues

Personal health is the capacity to assume responsibility for one's well-being through deliberate choices aimed at maintaining health (Personal Health , 2020). It encompasses not only the physical well-being of an individual but also the wellbeing of emotional, intellectual, social, economic, spiritual, and other facets of life. Healthcare professionals experience considerable disruption to their personal health due to various occupational stressors, such as excessive workloads, elevated job expectations, and burnout, especially in high-pressure settings like emergency departments (Health Workers Face a Mental Health Crisis, 2023). These variables affect mental well-being and can also result in physical health problems, including sleep disruptions and heightened vulnerability to occupational hazards. Zajac et al. (2021) state that personal health issues among healthcare workers can have significant effects on their colleagues, impacting both team dynamics and the overall quality of care. When a healthcare worker is affected by health challenges whether physical, mental, or emotional, their performance and ability to contribute fully to the team may decrease, placing added strain on their coworkers who need to cover for their absence or reduced capacity. This further stress may result in diminished job satisfaction, and decreased morale among remaining personnel, while also adversely affecting the continuity and quality of care delivered to patients.

Wickstrom (2023) asserts that healthcare professionals have personal health challenges stemming from a confluence of occupational stresses, physical and psychological strain, and systemic problems within healthcare settings.

Comprehending these contributing elements is essential for establishing a supportive environment that enables healthcare personnel to address personal health issues more efficiently, thereby enhancing both employee well-being and the quality of patient care. Houry (2023) states that personal health issues among healthcare workers arise from various factors, often influenced by the setting and operational challenges of healthcare environments worldwide. In many regions, hospitals and clinics are seeing increased instances of workplace stress, exhaustion, and even physical safety risks. Healthcare facilities are increasingly trying to address these challenges by investing in wellness programs, mental health support, and violence prevention strategies, although more support and structural changes are needed to make a lasting difference in these workers' lives.

Murthy (2022) states that personal health issues among healthcare workers tend to intensify during periods of heightened workload, often occurring in response to systemic demands like the COVID-19 pandemic, flu seasons, or during times of healthcare workforce shortages. For example, healthcare staff experience heightened levels of stress, burnout, and mental health challenges during pandemics or national health crises, as these situations demand extended hours, increased patient loads, and create emotionally challenging environments. This has led to a significant increase in stress-related health issues rates, with recent data showing that about two-thirds of nurses and doctors report feeling burned out, especially in high-stress roles such as intensive care and emergency departments.

2.4.2 Physical health challenges in healthcare

Musculoskeletal disorders (MSDs) in healthcare workers are commonly caused by lifting heavy objects and performing repetitive tasks. H Barrero and Martinez (2021) state that MSDs are classified into various categories, including low back pain, neck pain, osteoarthritis, and rheumatoid arthritis. These activities place excessive strain on muscles, joints, tendons, and the spine, leading to chronic pain and disability. Key risk factors include aging, obesity, and occupational exposures such as repetitive motion and overexertion. Lifting tasks, particularly those involving awkward postures or repetitive heavy loads, can cause significant strain on the back and shoulders, while tasks that require repetitive motions such as typing or handling medical instruments often lead to disorders like carpal tunnel syndrome or tendinitis (Greggi, et al., 2024). These disorders are exacerbated by the lack of sufficient rest during work and the fast pace at which tasks are performed, which increases muscle fatigue and limits recovery time. As these conditions develop over time, they not only reduce the worker's quality of life but also lead to absenteeism, higher medical costs, and decreased productivity.

Healthcare workers (HCWs) are at an elevated risk of developing respiratory issues due to their exposure to infectious agents in clinical environments. The nature of healthcare work especially in settings like hospitals, clinics, and emergency care means that HCWs frequently come into contact with pathogens transmitted through various routes, such as contact, droplet, and airborne transmission (OSHA, 2024). Airborne diseases like tuberculosis (TB), which spreads through inhalation of infected particles, represent a major respiratory hazard for HCWs. Other viral respiratory infections, such as influenza and COVID-19, are also significant concerns. These

viruses can spread through droplets released when an infected person coughs or sneezes. Healthcare environments, with their high density of patients and procedures like intubation, increase the likelihood of exposure to these respiratory pathogens. Recent studies have highlighted that frontline HCWs face higher infection rates during respiratory epidemics, with risks elevated due to close patient contact and inadequate protective measures (Tian et al., 2021). Infections like COVID-19 have demonstrated the potential for asymptomatic or subclinical transmission, making prevention strategies critical for safeguarding workers. HCWs are encouraged to follow stringent protective protocols such as proper use of personal protective equipment (PPE) and respiratory protection.

Sleep deprivation and fatigue are critical concerns for healthcare workers, with significant impacts on their well-being and the quality of care provided. Saintila et al. (2024) said that healthcare professionals often experience poor sleep due to long shifts, rotating schedules, and high emotional and physical demands. Studies show that sleep deprivation is strongly linked to burnout, anxiety, and depression among healthcare workers. For instance, healthcare workers with inadequate sleep are more likely to report symptoms of depression and psychological distress, with sleep disturbance exacerbating stress during demanding periods like the COVID-19 pandemic. Shechter, et al. (2023) highlights the bidirectional relationship between poor sleep and burnout. Lack of sufficient rest impairs cognitive functions like memory, concentration, and decision-making, which can lead to medical errors. This, in turn, increases stress and fatigue, contributing to a vicious cycle.

2.4.3 Mental health challenges in healthcare

Healthcare professionals regularly encounter considerable stress and anxiety stemming from the demanding nature of their responsibilities, which involve managing important and usually horrific patient situations. The stress has intensified subsequent to the COVID-19 pandemic, which introduced additional constraints including heightened workload, exposure to elevated mortality rates, and persistent danger of infection. These factors contribute to chronic mental health challenges, including heightened anxiety, burnout, and even post-traumatic stress disorder (PTSD), especially for those working in frontline roles like emergency care and intensive care units (Mangurian et al., 2023). Factors like insufficient staffing, excessive administrative demands, and long hours amplify these stressors. Deger (2024) mention that many healthcare workers report sleep disturbances, irritability, and feelings of helplessness, symptoms which often lead to burnout if unaddressed. Mental health programs have been developed to mitigate these effects by offering support and resources tailored to healthcare workers' unique needs. These initiatives aim to reduce stigma around seeking help and provide practical mental health resources.

Depression and emotional exhaustion are critical concerns among healthcare workers (HCWs), impacting their mental health and the quality of patient care. Spányik et al. (2023) reveal that prolonged stress from workload, emotional demands, and exposure to trauma and illness can lead to severe emotional exhaustion, a core aspect of burnout. The COVID-19 pandemic exacerbated these issues, with healthcare workers reporting heightened levels of depression and exhaustion from extended work hours, inadequate staffing, and frequent exposure to suffering and death, particularly

in critical and intensive care units. Sexton, et al. (2022) indicates that these mental health strains are associated with a higher likelihood of HCWs leaving their professions or considering career changes, which exacerbates staffing shortages and further stresses the workforce. For example, HCWs experienced a significant increase in emotional exhaustion during the pandemic, with nearly 50% showing signs of depressive symptoms. Healthcare systems are now prioritizing support strategies to address these challenges, including mental health services, resilience training, and workload management to mitigate the risk of depression and emotional exhaustion, supporting a more sustainable workforce.

Substance abuse among healthcare workers, is a significant concern, both for patient safety and the health of the professionals involved. This issue, often linked to high stress, fatigue, and ready access to drugs, manifests in various ways, including direct drug use or "diversion" where controlled substances intended for patients are misappropriated by staff. The prevalence of substance use disorders (SUDs) among healthcare providers varies but has been observed to affect between 6-10% of nurses at some point, indicating a critical need for awareness and preventive measures within healthcare facilities (Saver, 2023). Healthcare workers are often under significant stress due to long hours, high-pressure environments, emotional strain, and the physical demands of their jobs. Unfortunately, these factors can contribute to the development of substance abuse problems, which, when left unaddressed, can impair their judgment, compromise their ability to provide safe care, and even put their own health and lives at risk. Sekkat et al. (2024) found that a study in Morocco found that 14.1% of healthcare workers smoked tobacco, 2.6% used cannabis, and 8.5% consumed alcohol, with high rates of dependence among users. The findings highlight

not only the prevalence of substance use but also the significant levels of dependence among those who partook in these substances. Tobacco use was the most widespread, suggesting a potential coping mechanism for stress or long working hours, common challenges in healthcare environments. The use of cannabis and alcohol, though less common, still points to a broader issue of substance reliance, potentially linked to the emotional and psychological strain that healthcare professionals face. The high rates of dependence among users underscore the need for targeted interventions to address substance abuse within this vulnerable group, which could ultimately affect both their well-being and patient care.

2.5 HYPOTHESIS DEVELOPMENT

Based on the research questions and the research objectives, the following research hypotheses have been developed. The study predicts the following outcomes.

2.5.1 Inadequate staffing and absenteeism

Inadequate staffing refers to situations in healthcare where the number of available staff, especially AMOs, falls short of what's needed to maintain high-quality patient care. Recent studies have shown that inadequate staffing negatively impacts both patient outcomes and the well-being of healthcare workers. For example, 2024 study from the University of Pennsylvania's Leonard Davis Institute highlights that high nurse-to-patient ratios lead to increased stress-related health issues, which compromises the level of care and raises risks for both patients and healthcare providers (Levins, 2023). This issue has persisted despite awareness and legislative

efforts, such as California's mandated staffing ratios, as many other states have yet to implement similar policies to address the crisis effectively.

Another study from the American Hospital Association's latest survey reveals that nearly 88% of nurses are concerned that staffing shortages are harming patient care (American Hospital Association , 2024). A related report by the Center for Health Workforce Studies indicates that inadequate training and support for new nurses contribute significantly to the workforce shortage, especially in New York (James, 2024). This shortage leads not only to increased job dissatisfaction and stress-related health issues among nurses but also to a potential decline in patient care quality due to increased workload and stress.

Based on the findings of previous studies that have demonstrated inadequate staffing influence on absenteeism, Hypothesis 1 is proposed as follows:

H1: There is a significant relationship between inadequate staffing and absenteeism among Assistant Medical Officers.

2.5.2 Personal health issues and absenteeism

Personal health issues affecting absenteeism often include both physical and mental health challenges. Stafford (2024) state that personal health issues encompass chronic illnesses like cardiovascular diseases, respiratory problems, and back pain, as well as acute conditions such as colds and seasonal infections. A study found that sickness is a primary reason for absenteeism, with 45.4% of health workers in Cuiabá, Brazil, reporting sickness leave, averaging 18.9 days absent (Souza and Frasson,

2023). Nawata (2023) found that health risk factors, including high cholesterol and blood sugar levels, have been shown to increase long-term absenteeism by 25% and 20%, respectively. These conditions often result in both direct health complications and side effects like fatigue, cardiovascular strain, and reduced immune response, which can lead to longer recovery times and thus extended periods of absence from work.

Recent studies indicate that employees with unmanaged chronic health issues or mental health struggles are at a higher risk of absenteeism. For instance, in one extensive dataset spanning 15,574 observations of over 2,300 employees, it was found that long-term absenteeism was primarily driven by health-related issues, with mental health conditions like depression and anxiety accounting for a significant portion (Nawata, 2024). Given the high prevalence of such cases, many companies are increasingly focusing on health support programs to reduce the impact of these personal health challenges on attendance.

Based on the findings of previous studies that have demonstrated personal health issues' influence on absenteeism, Hypothesis 2 is proposed as follows:

H2: There is a significant relationship between personal health issues and absenteeism among Assistant Medical Officers.

2.6 CONCLUSION

This section outlines the fundamental information that forms the basis of the researcher's investigation. It clarifies how inadequate staffing and personal health

issues affect absenteeism among AMOs. The researcher examined the connections between these factors, highlighting that inadequate staffing and personal health issues are significantly linked to the frequency of absenteeism. Understanding these connections is crucial for identifying high-risk factors and implementing targeted interventions to decrease absenteeism. In conclusion, this segment provides a comprehensive examination of the fundamental components underlying the research, establishing a clear factor that leads to absenteeism among AMOs. This understanding is crucial for organizations to assess how resource threats (e.g., high workloads, limited support) might be impacting absenteeism and developing strategies that prioritize resource replenishment and protection.

CHAPTER THREE

METHODOLOGY

3.1 INTRODUCTION

This study examines the factors influencing absenteeism among assistant medical officers in Hospital Kuala Lumpur. This chapter describing the methodology of the research which including the study design and location, sampling method, sampling frame, sampling unit, sample size, study instrumentation, data collection and analysis.

3.2 RESEARCH DESIGN

A quantitative research design has been adopted in this study because it allows the researcher to test and examine the relationship between the constructs of the study. The study employed a cross-sectional descriptive survey design, where data was collected at a single point in time, allowing the researcher to gather information without manipulating the study variables or altering the natural environment. A cross-sectional is convenient, inexpensive, and consumes less time. Hospital Kuala Lumpur (HKL) was chosen as the research site because the study focuses on AMO's on duty at this location. According to the Ministry of Health Malaysia (2024), HKL is the largest hospital under its administration, making it an ideal setting to study AMOs' experiences. The probability of AMO's at HKL experiencing work stress and depression problems is higher due to the hospital's high workload and demands, which further motivated the researcher to select this site for the study.

3.3 POPULATION AND SAMPLING

The researcher determined the sample size based on Krejcie and Morgan (1970) guidelines, which provide sample size recommendations corresponding to the study population (Krejcie and Morgan, 1970). The selection of the sample is based on quota sampling method that involves assistant medical officers in Hospital Kuala Lumpur. Quota sampling is chosen for studying absenteeism among Assistant Medical Officers (AMOs) at Hospital Kuala Lumpur (HKL) because it ensures representation of key demographic groups, such as age, gender, years of service, and department assignment, which may influence absenteeism patterns. It focuses on relevant characteristics like shift type, workload, and job tenure, ensuring participants with these traits are included to provide insights into absenteeism trends across distinct categories. This method is also time- and cost-efficient, as it does not require a complete sampling frame, making it practical in large institutions like HKL where accessing comprehensive records can be challenging. Additionally, quota sampling addresses the heterogeneity of absenteeism by dividing the population into relevant categories and sampling proportionally, effectively capturing variations influenced by factors such as staffing adequacy, and personal health issues.

3.3.1 Population

The first procedure required for any sampling to be effective is to specify clearly the population of attention (Creswell, 2018). The study's population consists of a collection of people and organizations that are of interest to the study. Data was collected through a questionnaire distributed by the researcher. This method was chosen so that any clarification required by the respondents could be made at the same time during the distribution of the questionnaire. For the purpose of identifying the

people who will be a part of the research study, inclusion criteria were established to define the specific traits required. For this study, the target population comprises all Assistant Medical Officers on duty at Hospital Kuala Lumpur. Hospital Kuala Lumpur was specifically selected as the research site due to its status as the oldest Government Hospital in the Klang Valley and its highest outpatient statistical data compared to other teaching hospitals in the city. This high patient volume increases the workload and, consequently, the risk of absenteeism among assistant medical officers in Hospital Kuala Lumpur, making HKL a pertinent location for this study. Assistant Medical Officers (AMOs) are chosen for this study because they play a critical role in delivering frontline healthcare services at Hospital Kuala Lumpur (HKL) and are often exposed to high workloads, long shifts, and stressful working environments, making them particularly susceptible to absenteeism. Their responsibilities, which include assisting in surgeries, administering treatments, and managing patient care, place them at risk of inadeqaute staffing, and personal health issues factors commonly linked to absenteeism. Studying AMOs provides valuable insights into how staffing adequacy, and personal health concerns contribute to absenteeism, helping to identify strategies to improve workforce management, reduce absentee rates, and enhance healthcare service delivery.

3.3.2 Sample Size

One of the most important aspects of conducting a study is determining the sample size Kadam and Bhalerao (2010). For this research, the total population comprises 440 individuals. According to Cooper and Schindler (2006), sampling is the process of selecting from a population so that it represents the entire population. Based on Krejcie and Morgan (1970) guidelines, a population of 440 Assistant Medical Officers from various department in Hospital Kuala Lumpur requires a sample size of

205 respondents to adequately conduct the study. This sample number was formulated previously based on the scientific formula and was set up as a standard for size sampling. The selection of sampling size was significantly simplified based on Table 3.0 which provides an excellent base with comprehensive choices. These selections will fit a wide variety of population sizes based on scientific bases.

Table 3.1
Suggested sample size according to number population

Table for Determining Sample Size of a Known Population

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384

Note: N is Population Size; S is Sample Size *Source: Krejcie & Morgan, 1970*

Hospital Kuala Lumpur comprises 25 clinical departments where staff, including Assistant Medical Officers, are directly involved in patient care and interactions with visitors. During the study period, the total number of Assistant Medical Officers was 440 staff.

Table 3.2
Distribution by 25 Clinical Department for Assistant Medical Officer Staff working at Kuala Lumpur Hospital

Clinical Department	**Population**
1. Emergency & Trauma	40
2. General Medicine	13
3. Cardiothoracic	1
4. General Surgery	7
5. Orthopedics & Traumatology	17
6. Anaesthesia & Intensive Care	13
7. Ophthalmology	7
8. Otorhinolaryngology	5
9. Dermatology	3
10. Neurology	7
11. Nephrology	17
12. Neurosurgery	5
13. Plastic & Reconstructive Surgery	4
14. Nuclear Medicine	8
15. Psychiatry	19
16. Forensic	8
17. Urology	6
18. Radiotherapy & Oncology	4
19. Transplant Resource Center	1
20. Occupational Safety & Health	2
(OSH)	1

21. Obstetrics And Gynecology	1
22. Clinical Research Center	3
23. Phlebotomy	2
24. Blood Porter Unit	11
25. Management	
Grand Total	**205**

Source: Obtained from Human Resources of Hospital Kuala Lumpur

3.4 SAMPLING TECHNIQUES

The study employed the quota sampling technique to select and determine a sample size of 440 AMOs, ensuring equal representation across various departments at Hospital Kuala Lumpur. Quota sampling is a sampling procedure that ensures certain characteristics of the population sample was represented at the exact level desired by the investigator (Acharya et al.,2013). Although the quota sampling method is sometimes criticized for the reliability of the sample results, it is generally considered more reliable than other non-probability methods, such as convenience or snowball sampling (Aprameya, 2016).

The sample was selected using a non-probability sampling technique, specifically purposive sampling technique to obtain participants aligned with the purpose of the study. The study aims to identify factors influencing absenteeism among AMOs at Hospital Kuala Lumpur, with respondents meeting predefined criteria.

Quota sampling was used for the study due to its ability to enhance the representation of AMOs across different departments in the same Hospital. This ensures that the study reflects the diversity of experiences among AMOs working in various clinical areas, which is essential for understanding absenteeism comprehensively. Additionally, quota sampling was chosen to address resource constraints faced by researcher in terms of limited time and financial resources (Sekaran and Bougie, 2010; Zikmund, 2013). The absence of a practical sampling frame, as highlighted by Cooper and Schindler (2006), further supported the use of this method, as it allows for the selection of participants without requiring a complete list of the population.

3.5 DEVELOPMENT OF RESEARCH INSTRUMENTS

3.5.1 Questionnaire Design

Questionnaires were used as the main research tool to collect data from respondents. Surveys are designed without any attempt to control conditions or manipulate variables. Surveys are well suited for descriptive studies but can also be used to explore aspects of a situation, seek clarification, and provide data to test hypotheses (Denscombe, 2010). There are two types of questionnaires used in this study, namely the general questionnaire and the specific questionnaire. The general questions are designed to determine the demographics of workers, such as job type, work experience, and so on.

Meanwhile, the specific questionnaire consists of specialized questions regarding the factors influencing absenteeism among AMO's. All the questions

included in this questionnaire provide information that helps determine the factors influencing absenteeism among AMO's at healthcare facilities.

Table 3.3 shows the sources of instruments used in this study. Section A is a self-administered questionnaire adapted from the study by N. Dyrbye et al. (2019) to determine the demographics of workers, such as gender, age, education, job position grade, working hour and work experience. The questionnaire was found to be relevant and suitable for use in this study.

Inadequate number of staff influence absenteeism serves as the independent variable in section B. Inadequate staffing is primary reasons for the implicit rationing of nursing care. The researcher has selected survey questions tested by Zeleníková, et al., (2023) in their study. In this study, an adapted version consisting of 10 questions with responses measured on a five-point Likert scale will be used.

Personal health issues are examined as an independent variable in Section C of this study. These issues are recognized as significant contributors to absenteeism among healthcare workers, as they can adversely affect both physical and psychological well-being, leading to reduced work attendance. The survey items used to measure this variable have been adapted from the instrument developed and validated by Qanash et al. (2021). In the present study, a modified version comprising 10 items will be employed, with responses measured using a five-point Likert scale.

Section D, addressing these systemic issues such as improving staffing levels, clarifying sick leave policies, ensuring availability of sick days, and providing

financial support could promote appropriate absenteeism among ill HCWs, thereby reducing the risk of influenza transmission within healthcare settings. Respondents were asked to indicate their level of agreement for each question using a five-point Likert scale. Both the original and modified versions included twelve (12) related questions.

Table 3.3
Source of Instrument

Variables	**Item**	**Scales**	**Sources**
Section A **Demographic Profile**	6	Nominal scale	(N. Dyrbye et al., 2019)
Section B **Inadequate Staffing** **(Independent Variable)**	10	Ordinal Scale (5-point Likert scale)	(Zeleníková, et al., 2023)
Section C **Personal Health Issue** **(Independent Variable)**	10	Ordinal Scale (5-point Likert scale)	(Qanash et al., 2021)
Section D **Absenteeism** **(Dependent Variable)**	10	Ordinal Scale (5-point Likert scale)	(Johnson et al., 2021)

Table 3.4
Original version of the questions, and the adapted version related to the inadequate staffing (Zeleníková, Jarošová, Mynaříková, Janíková, and Plevová , 2023)

ORIGINAL	ADAPTED
Inadequate number of staff	There are often too few staff members to handle the workload demands
Inadequate number of assistive personnel	The number of assistive personnel (e.g., colleague) is often insufficient to support nursing care.
Unexpected patient admission and discharge	Unexpected patient admissions and discharges create challenges in providing care
Deterioration of the condition of a patient	Deterioration of a patient's condition significantly impacts my ability to manage my workload.
Communication problems with doctors in the department	Communication problems with the department superior are frequently experienced
Supplies/equipment not available when needed, or not functioning properly	Supplies and equipment are often unavailable or not functioning properly when needed.
Inadequate hand-off from previous shift or from another department	Inadequate hand-offs from previous shifts or other departments affect my ability to provide quality care

Nursing assistant did not communicate that planned activities of nursing care were not provided	Colleague often fail to communicate when planned nursing care activities are not completed.
Lack of cooperation and/or help from team members	A lack of cooperation or help from team members is often encountered
Communication problems within the nursing team	There are frequent communication problems within the team.

Table 3.5
Original version of the questions, and the adapted version related to the personal health issue (Qanash et al., 2021)

ORIGINAL	ADAPTED
Headache	I frequently experience headaches related to work demands
Fatigue	I often feel fatigued due to my workload
Depression	I have experienced feelings of depression related to my work environment.
Mood irritability	I often feel irritable because of my work
Psychological health	I feel that work-related stress negatively affects my psychological health
Cardiovascular health	I believe that work-related stress has negatively impacted my cardiovascular health

Gastrointestinal health	I feel that my gastrointestinal health has been adversely affected by my work environment
Level of job satisfaction	I am satisfied with my current job
Adverse effect of working hours on social life	I find that my working hours negatively affect my social life
Poor sleep quality	I feel that my sleep quality has deteriorated due to work-related factors.

Table 3.6
Original version of the questions, and the adapted version related to the absenteeism (Johnson et al., 2021)

ORIGINAL	ADAPTED
Perceived lack of management support for absenteeism	I perceive a lack of management support regarding absenteeism.
Perceived work was understaffed	I perceive my workplace is often understaffed.
Felt fear of discipline	I feel that the fear of disciplinary action affects my decision to attend work
Felt responsibility to patient and coworkers to work	I feel a strong sense of responsibility toward my patients and coworkers when deciding whether to go to work
Felt well enough to work	Most of the time, I feel physically and mentally capable of working

Unable to find replacement for work	I struggle to find a replacement when I need to take time off from work
Directed by management to come to work	I have been directed by management to come to work despite personal circumstances.
Unaware of contagions	I am sometimes unaware of potential contagions that I might spread to coworkers or patients
Desired not to use time-off	I prefer not to use my time-off unless absolutely necessary.
No more sick days left to use	I feel my attendance decisions are influenced by having no sick days left to use

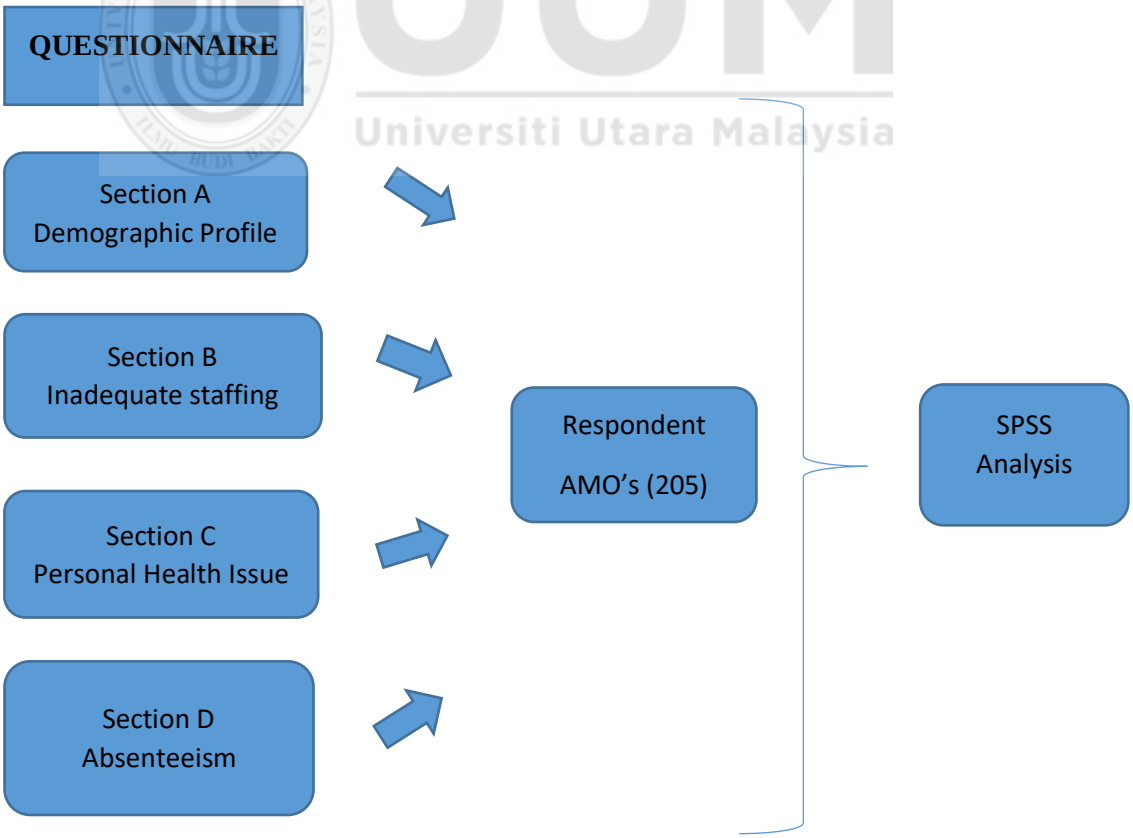

Figure 3.7
Questionnaire Framework

The questionnaire will first be reviewed by the supervisor to ensure that the researcher remains aligned with the study's objectives and does not deviate from the intended research purpose. After the supervisor's review, the questionnaire will be validated by experts to ensure that the language and technical terms are clear and suitable for AMOs as respondents. Once the content is approved and validated, the researcher will proceed with distributing the finalized survey forms.

3.5.2 Pilot study

Prior to pilot test, the researcher must obtain formal approval from the Hospital Kuala Lumpur Clinical Research Center. In this study, the pilot test involved 30 respondents who were not part of the actual study population to ensure unbiased feedback. The primary objective was to gather feedback on the clarity and understanding of the questionnaire, particularly the language used, the relevance of questions, and the ease of completion. The results of the pilot study were analysed, and any necessary adjustments were made to improve the questionnaire's accuracy and appropriateness for the target respondents.

Additionally, Cronbach's Alpha was calculated during the pilot study to assess the internal consistency and reliability of the questionnaire. Cronbach's Alpha values range from 0 to 1, with higher values indicating greater reliability. A threshold of 0.7 or higher is generally considered acceptable for reliability. The analysis provided valuable insights into whether the items in each section of the questionnaire consistently measured the intended constructs. If the reliability for any section was found to be low, modifications were made to ensure the questions were clear, coherent, and aligned with the study objectives.

Baesd on Table 3.8, the reliability test using Cronbach's Alpha for each variable indicates that the instrument used in the pilot study demonstrates excellent internal consistency. The variables inadequate staffing ($\alpha = 0.977$) and personal health issue ($\alpha = 0.955$) all exceeded the 0.9 threshold, suggesting that the items within each construct are highly reliable. Meanwhile, the variable absenteeism recorded a Cronbach's Alpha value of 0.767, which is considered acceptable and still reflects a satisfactory level of internal consistency. Overall, the results support the reliability of the questionnaire for the main study.

Table 3.8
Result of the Reliability Test using Cronbcah's Alpha for each variable

Variables	**Cronbach's Alpha Values**	**N**
Inadequate Staffing	0.977	10
Personal Health Issue	0.955	10
Absenteeism	0.767	10

3.6 DATA COLLECTION METHODS

The distribution of questionnaire is scheduled to begin in January 2025. Respondent will be required to answer all questions without skipping any, and their responses will be kept strictly confidential to encourage honest participation. The distribution of the questionnaire will be facilitated by the Assistant Medical Officer supervisor in each department and unit. Respondents will be restricted from submitting multiple responses, as the survey will be administered through Google Forms. Once

the questionnaires are completed, the data obtained will be analyse using Statistical Package for Social Sciences (SPSS) Version 26.

3.7 DATA ANALYSIS TECHNIQUES

In this research, data will be analyzed using Statistical Package for Social Science (SPSS) Versions 26. The analysis will proceed in three stages: descriptive analysis, correlation analysis, and regression analyses, to test the proposed hypotheses and examine factors influencing absenteeism among healthcare workers.

Descriptive analysis will first summarize the data, including central tendencies (mean, median), variability (standard deviation, range), and demographic characteristics such as age, gender, education, and work experience. This step is essential to ensure data accuracy, detects outliers, and assesses distribution normality, providing a foundation for further analyses.

Correlation analysis will then explore the relationships between variables, such as inadequate staffing, personal health issue and absenteeism. Pearson's correlation coefficient (r) will measure the strength and direction of these relationships, with statistical significance assessed at $p < 0.05$. This analysis will determine whether significant associations exist, informing predictive modelling.

Finally, regression analysis will evaluate the predictive impact of independent variables (e.g., inadequate staffing, personal health issue) on dependent variable (absenteeism). Multiple linear regression will analyse the combined effects of multiple predictors. Assumptions of regression, including linearity, normality,

homoscedasticity, and multicollinearity will be tested before analysis. Outputs such as the coefficient of determination (R^2) will indicate the variance explained by the model, and regression coefficients (β) will provide insight into the strength and direction of effects. Statistical significance (p-values) will confirm the validity of the relationships.

Together, these analyses will allow the study to examine patterns, test hypotheses, and identify factors influencing absenteeism among healthcare workers, offering evidence-based insights for intervention strategies.

3.8 ETHICAL CONSIDERATIONS

This study complies to ethical guidelines and will be submitted for ethical approval to the Clinical Research Centre (CRC) at Hospital Kuala Lumpur (See in Appendix Approval Letter).

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 INTRODUCTION

This chapter aims to explore the factors contributing to absenteeism among AMOs in Hospital Kuala Lumpur by examining three key variables: inadequate staffing and personal health issues. Specifically, this study examines how each of these factors relates to the frequency of absenteeism, to identify significant correlations that can guide more effective workforce management strategies. The chapter presents statistical analyses, including correlation coefficients and regression results, to determine the strength and nature of these relationships. These findings are crucial for identifying the root causes of absenteeism, supporting hospital administrators in developing evidence-based policies and targeted interventions to improve staff attendance and overall well-being, while also contributing to the broader body of research on workforce challenges in the healthcare sector.

4.2 RESPONSE RATE

Based on Table 4.1, a total of 249 questionnaires were distributed to AMOs in Hospital Kuala Lumpur, representing 100% of the intended sample. Out of these, 249 questionnaires were returned, resulting in a 100% response rate. Notably, all returned questionnaires were deemed usable, resulting in a 100% usability rate. This

exceptional level of participation enhances the reliability and generalizability of the study findings while minimizing the risk of non-response bias.

Table 4.1

Response Rate

Questions	Number	Percentage
Distributed Questionnaires	249	100
Returned Questionnaires	249	100
Usable Questionnaire	249	100
Unusable Questionnaire	0	0

4.3 NORMALITY TEST

To determine whether the data for each of the contributing factors, such as inadequate staffing, and personal health issues, are normally distributed, a normality test using Skewness and Kurtosis was conducted. Normal distribution is a key assumption for many parametric statistical analyses, including correlation and regression tests.

The results in Table 4.2 showed that the Skewness values for all two variables fell within the acceptable range (z-values between -1.96 and +1.96), indicating that the data distributions are approximately symmetrical and exhibit minimal skew. In the 6th edition of Discovering Statistics Using IBM SPSS Statistics (2024), Andy Field discusses the use of standardized residuals in assessing normality. He notes that values falling outside the ±1.96 range may indicate deviations from normality, as approximately 95% of data in a standard normal distribution lie within this interval.

This approach is particularly useful when evaluating the residuals of a model to ensure they meet the assumption of normality (Field, 2024). However, the Kurtosis values for all two variables were significantly negative, with z-values below -1.96, suggesting a platykurtic distribution, meaning the data are flatter than a normal distribution and have lighter tails. While this departure from normality is notable, it is not uncommon in social science research, particularly when analyzing subjective survey data (Byrne, 2016; Tabachnick and Fidell, 2018). Given the relatively large sample size (n = 249), minor violations of normality, such as mild kurtosis, are generally considered acceptable. Parametric tests such as correlation and regression are robust to such deviations in large samples (n > 200), due to the Central Limit Theorem and the inherent robustness of these tests under non-normal conditions (Lumley et al., 2002). Therefore, the data remain suitable for parametric analysis. These results support the robustness of the dataset and its appropriateness for further statistical testing related to absenteeism among AMOs in Hospital Kuala Lumpur.

Table 4.2
Skewness & Kurtosis table for all variables

Variables	**Skewness**			**Kurtosis**		
	Value	Std. Error	z-value	Value	Std. Error	z-value
Inadequate Staffing	-0.292	0.154	-1.90	-1.835	0.307	-5.98
Personal Health Issue	-0.261	0.154	-1.69	-1.833	0.307	-5.97
Absenteeism	-0.033	0.154	-0.21	-1.252	0.307	-4.08

4.4 DESCRIPTIVE ANALYSIS

4.4.1 Demographic background

Table 4.3 illustrates the demographic results based on gender, age, education, job position grade, working hour and working experience. In terms of gender, the majority of the participants are male, comprising 72.3% of the sample, while female participants make up 27.7%. This shows a clear gender disparity, with a much higher representation of males in the workforce compared to females.

The age distribution of the participants shows that the largest group is between 20-29 years old, comprising 52.6% of the sample. This is followed by the 30-39 years old group at 22.1%, and the 40-49 years old group at 20.1%. The smallest group is those aged 50 years old and above, making up only 5.2% of the respondents. A predominantly young workforce may face higher adjustment stress, contributing to absenteeism if proper mentorship and support are lacking.

In terms of education, the majority of participants hold a diploma, comprising 53.0% of the sample. The next largest group has a bachelor's degree, making up 34.1% of respondents. A smaller portion of participants have a master's degree (11.6%), and only 1.2% have a PhD. The high proportion of diploma holders could imply that the majority of AMOs enter the profession through diploma-level qualifications, which could impact job satisfaction and indirectly influence absenteeism behaviour.

The job position grade distribution shows that the majority of participants are in the U5 grade, comprising 66.7% of the sample. The next largest group is in the U6 grade, making up 12.4% of respondents. Smaller percentages are in the U9 grade (15.7%), with U10 representing 4.8% of the workforce. Only 0.4% of respondents hold

a position in the U7 grade. The high proportion in U5 grade positions suggests many respondents occupy operational roles with potentially high work demands and limited upward mobility, factors which may be linked to burnout or disengagement.

The working hour distribution reveals that most participants work between 6-7 hours a day, making up 40.2% of the sample. The second largest group works 8-9 hours a day, comprising 26.5% of respondents. A significant portion works 10-11 hours daily (28.9%), while 4.4% work 12 hours or more. While majority work within standard hours, the 33.3% working more than 10 hours daily may face chronic fatigue, which can elevate absenteeism risk and reduce long-term productivity.

The working experience distribution shows that 39.0% of participants have 6-10 years of experience, making it the largest group. The second largest group, with 33.3%, has more than 10 years of experience. The remaining 27.7% of respondents have 1-5 years of experience. Moderate to high experience levels may indicate a seasoned workforce, however, prolonged exposure to staffing constraints without career progression could reduce motivation or contribute to chronic stress-related absenteeism.

In summary, the respondents in this study were predominantly male, in their twenties, holding diploma-level qualifications, and serving in U5-grade positions, which are generally considered entry- to mid-level roles within the healthcare system. Despite their young age, many reported moderate to extensive work experience, suggesting early entry into the workforce and a growing familiarity with their responsibilities. This combination indicates a youthful yet experienced workforce that may be energetic and adaptable but also vulnerable to early-career pressures. Limited

formal qualifications could hinder advancement opportunities, while the demanding nature of healthcare particularly in resource-constrained settings may contribute to stress, burnout, and absenteeism. These findings highlight the need for targeted support, adequate staffing, and career development initiatives to sustain motivation and well-being among these frontline workers.

Table 4.3
Demographic profile of AMOs in Hospital Kuala Lumpur (n=249)

Variable	Classification	Frequency	Percentage
Gender	Male	180	72.3
	Female	69	27.7
Age	20 – 29 years old	131	52.6
	30 – 39 years old	55	22.1
	40 – 49 years old	50	20.1
	50 years old and above	13	5.2
Education	Diploma	132	53.0
	Bachelor Degree	85	34.1
	Master	29	11.6
	PhD	3	1.2
Job Position Grade	U5	166	66.7
	U6	31	12.4
	U7	1	0.4
	U9	39	15.7
	U10	12	4.8
Working Hour	6-7 Hours	100	40.2
	8-9 Hours	66	26.5

	10-11 Hours	72	28.9
	12 Hours and Above	11	4.4
Working	1-5 Year	69	27.7
Experience	6-10 Years	97	39.0
	10 Years and Above	83	33.3

4.4.2 Descriptive analysis of inadequate staffing

For inadequate staffing, Table 4.4 shows descriptive statistics. The statement *"There are often too few staff members to handle the workload demands"* had a mean score of 3.7108 from 249 respondents, suggesting moderate to high workplace understaffing concern. The relatively high mean score shows that many employees feel there aren't enough staff to meet their requests. Overworked workers may experience higher stress, longer hours, and lower quality work. Although many employees perceive understaffing as a significant issue, others consider it less problematic due to variations in work conditions, job responsibilities, or personal coping mechanisms. The standard deviation of 1.44409 suggests moderate heterogeneity in replies. While some employees may not strongly agree with the statement, a significant number experience this issue, which could be particularly troubling in industries like healthcare where sufficient staffing is critical for safety and efficiency. This shows that organisations may need to evaluate workforce levels and work distribution to reduce employee burnout, stress, and workload demands.

The statement *"Communication problems with the department superior are frequently experienced"* had a mean score of 3.4458 from 249 responders, suggesting moderate to severe worry about supervisor communication. This score indicates that many employees struggle to communicate with their department heads, which could lead to misconceptions, delays in decision-making, and leadership dissatisfaction. The standard deviation of 1.47221 reflects significant variability in communication experiences among employees, indicating that some consistently encounter communication challenges, while others experience fewer difficulties likely influenced by factors such as management style, individual communication preferences, or the work environment. Communication issues with superiors are not ubiquitous, although many still struggle with them (1.00–5.00). Ineffective communication with supervisors can lead to frustration, misaligned expectations, and a perceived lack of support, all of which may contribute to increased stress. Addressing these communication challenges is essential to improving workflow, enhancing staff morale, and ensuring that employees feel heard, supported, and understood by their leaders.

"Deterioration of a patient's condition significantly impacts my ability to manage my workload" received a mean score of 3.1928 from 249 respondents, indicating moderate concern that patient conditions affect healthcare workers' ability to manage their tasks. The comparatively high mean score implies that many healthcare personnel feel very stressed when a patient's condition deteriorate unexpectedly, disrupting their capacity to balance their other responsibilities. This may force them to choose urgent patient requirements over other duties and patients. Some workers may feel that deteriorating conditions significantly disrupt their

workload management, while others may not, possibly due to their roles, experience levels, or care setting. The relatively large standard deviation of 1.64947 signifies considerable variability in employees' perceptions of the issue, indicating that experiences and concerns are not uniformly distributed across the workforce. While not all employees feel equally impacted, a substantial portion of the staff express significant concern, highlighting the presence of notable challenges affecting many individuals. This variation could stem from differences in job roles, work environments, or personal resilience, suggesting that the issue has a meaningful effect on employee well-being and performance for a considerable segment of the workforce. Addressing these concerns is important to ensure a supportive and effective workplace for all employees. This item highlights the emotional and cognitive toll of managing deteriorating patient situations on healthcare personnel and the need for proper support systems, resources, and time management measures to prevent stress-related health issues.

From 249 respondents, the statement *"Supplies and equipment are often unavailable or not functioning properly when needed"* had a mean score of 3.1687, demonstrating that many workers struggle to get and use necessary supplies and equipment. This intermediate score suggests that while not all employees consider this a major issue, a significant portion suffer frequent disruptions due to defective or unavailable supplies. The standard deviation of 1.30896 reflects a moderate degree of variability in responses, indicating that the frequency of this difficulty varies among employees depending on their roles or work environments. The response range from 1.00 to 5.00 demonstrates that while some employees frequently encounter this issue, others experience it infrequently or to a lesser extent. Supplies and equipment can be

few or broken, causing stress, delays in patient care (particularly in healthcare settings), and blunders. Fixing this issue will help employees get the tools they need to execute their jobs and avoid disengagement.

The statement *"There are frequent communication problems within the team"* received a mean score of 3.1406, indicating that a substantial proportion of employees perceive frequent challenges in team communication. Poor communication within teams can result in misunderstandings, inefficiency, and a lack of coordination, which are all likely to impact job performance and job satisfaction. The standard deviation of 1.5607 indicates considerable variability, suggesting that while some workers experience communication as a constant challenge, others encounter these issues less frequently. The range of responses (1.00 to 5.00) indicates that while communication problems within teams are a significant concern for some employees, the issue is not uniformly experienced across the workforce.

The statement *"Inadequate hand-offs from previous shifts or other departments affect my ability to provide quality care"* received a mean score of 3.1124 from 249 respondents, indicating that a significant portion of employees experience difficulties in transitioning care or information. Ineffective communication during hand-offs when critical patient data, updates, and responsibilities are transferred can compromise the quality of treatment. The standard deviation of 1.51451 suggests that some employees may find this a regular and severe problem, while others may face it less often or have measures in place to mitigate it. Although not experienced by all, the full response range from 1.00 to 5.00 indicates that this issue is a notable concern for a significant portion of employees. Poor hand-offs can cause miscommunication,

forgotten information, delays in patient care, and treatment errors, which can lower care quality and stress personnel. Improving communication protocols, standardising procedures, and allocating enough time for comprehensive and accurate hand-offs will improve patient safety and employee well-being.

"A lack of cooperation or help from team members is often encountered" received a mean score of 3.0964, showing that many employees encounter challenges related to teamwork and cooperation. This item reflects the difficulties some employees facing when trying to work collaboratively, potentially leading to feelings of frustration, stress, or isolation. The standard deviation of 1.43921 suggests that while this issue is quite relevant for some, others may experience a more supportive and cooperative environment. The range of responses (1.00 to 5.00) again indicates a varied experience, with some employees struggling with lack of teamwork and others not feeling the same level of difficulty.

"Colleagues often fail to communicate when planned nursing care activities are not completed" received a mean score of 3.0643 from 249 respondents, indicating that a moderate portion of employees experience issues with colleagues not communicating when nursing care activities are not completed. This suggests that, for some workers, tasks may be left unfinished or uncommunicated, leading to confusion, delays, or missed care opportunities. The standard deviation of 1.50934 reflects some variability in responses, implying that while this may be a recurring issue for many, others may not experience it as frequently. The full range of responses (1.00 to 5.00) indicates that this issue is a concern for a significant number of employees, though it is not uniformly experienced across the workforce.

"The number of assistive personnel (e.g., colleagues) is often insufficient to support nursing care" received a mean score of 3.0402 from 249 respondents, indicating that a considerable number of employees believe this. This score suggests that many healthcare professionals perceive staffing shortages as a challenge that may impact care quality and patient management. The standard deviation of 1.51018 reflects substantial variability in responses, indicating that while some employees strongly agree with this concern, others may not face the same level of support deficiency, potentially due to differences in work settings, team dynamics, or resource availability. These responses (1.00 to 5.00) indicates that while this issue is not universally experienced, it remains a significant concern for many employees, especially in patient care contexts that require consistent and coordinated cooperation. Inadequate assistive staff can increase nurses' workload, cause mental and physical strain and compromise patient care. This emphasises the need for adequate personnel and support to let nurses do their jobs without compromising their health or care.

The statement *"Unexpected patient admissions and discharges create challenges in providing care"* had a mean score of 2.9357 from 249 responders, indicating that many healthcare personnel faces moderate to considerable challenges. This score implies that unanticipated patient volume variations might interrupt workflow, upset staff, and make care and administrative tasks difficult. The standard deviation of 1.62015 is high, indicating that some employees may find such disturbances burdensome, while others may feel more qualified to handle them due to experience or work conditions. The range of replies (1.00 to 5.00) shows that while not all employees face this obstacle the same way, many do, especially in fast-paced or high-pressure environments like hospitals. Unexpected admissions and discharges

can disrupt treatment, making it harder for staff to prioritise patient needs, maintain continuity, and avoid fatigue. To manage variable patient flow and improve treatment quality, flexible staffing methods and efficient communication mechanisms are essential.

Table 4.4
Descriptive statistics for inadequate staffing items among AMOs

	N	Min	Max	Mean	Std. Deviation
There are often too few staff members to handle the workload demands	249	2.00	5.00	3.7108	1.44409
The number of assistive personnel (e.g., colleague) is often insufficient to support nursing care.	249	1.00	5.00	3.0402	1.51018
Unexpected patient admissions and discharges create challenges in providing care	249	1.00	5.00	2.9357	1.62015
Deterioration of a patient's condition significantly impacts my ability to manage my workload.	249	1.00	5.00	3.1928	1.64947
Communication problems with the department superior are frequently experienced	249	1.00	5.00	3.4458	1.47221
Supplies and equipment are often unavailable or not functioning	249	1.00	5.00	3.1687	1.30896

properly when needed.					
Inadequate hand-offs from previous shifts or other departments affect my ability to provide quality care	249	1.00	5.00	3.1124	1.51451
Colleague often fail to communicate when planned nursing care activities are not completed.	249	1.00	5.00	3.0643	1.50934
A lack of cooperation or help from team members is often encountered	249	1.00	5.00	3.0964	1.43921
There are frequent communication problems within the team.	249	1.00	5.00	3.1406	1.56071
Valid N (listwise)	249				

4.4.3 Descriptive analysis of personal health issue

Descriptive statistics related to personal health concerns are presented in Table 4.5. The statement *"I frequently experience headaches related to work demands"* obtained a mean score of 3.5703 from 249 answers, showing that many employees are experiencing physical symptoms specifically headaches due to work constraints. This high score shows that many workers are experiencing physical discomfort due to workplace stress and demands such long hours, excessive workloads, mental strain, and insufficient breaks. A large range of replies (standard deviation 1.56965) suggests that some workers rarely experience this difficulty, while others do so regularly. The responses (1.00–5.00) show that the experience is not universal but prevalent enough to be concerning. Frequent headaches may indicate persistent stress and can negatively

impact productivity, job satisfaction, and absenteeism. This underscores the importance of identifying and addressing work-related stressors such as unreasonable expectations, lack of support, and poor work-life balance, to improve employees' physical and emotional well-being.

In contrast, the statement "*I find that my working hours negatively affect my social life"* scored higher, with a mean of 3.4578, suggesting that many employees feel their job demands are intruding on their personal time. This finding highlights a common struggle with work-life balance, where long shifts, unpredictable schedules, or excessive workloads limit the ability to maintain relationships and engage in social or recreational activities. The standard deviation of 1.56551 demonstrates notable variation in responses, suggesting that while the impact is not uniform, a considerable number of employees experience negative effects in their personal lives.

Similarly, the statement *"I feel that work-related stress negatively affects my psychological health"* received a mean score of 3.2129, reflecting a slightly stronger agreement that stress from work is taking a toll on employees' mental well-being. The standard deviation of 1.45873 reflects variability in responses, indicating that although the impact is not experienced equally by all, a significant number of employees are aware of and concerned about the psychological consequences of their job. This includes symptoms such as anxiety, emotional exhaustion, difficulty concentrating, or feeling overwhelmed. Together, these responses highlight the deep emotional impact that unrelieved workplace stress can have, emphasizing the need for mental health support systems, stress management strategies, and healthier organizational practices to maintain a psychologically sustainable work environment.

The statement *"I believe that work-related stress has negatively impacted my cardiovascular health"* received a mean score of 3.2088 from 249 respondents, signalling that a notable portion of employees perceive a link between their job stress and their heart health. This is a significant concern, as chronic stress is medically known to contribute to cardiovascular issues such as high blood pressure, irregular heartbeats, and even an increased risk of heart attacks. The standard deviation of 1.29069 suggests moderate variation in experiences, with some employees may already be experiencing physical symptoms or have received medical confirmation, while others may only suspect a link between their stress and cardiovascular health.. This finding is particularly concerning, as it highlights that stress is not only affecting employees emotionally but also manifesting physically, indicating a pressing need for organizational intervention and proactive health monitoring.

Similarly, the statement *"I feel that my gastrointestinal health has been adversely affected by my work environment"* yielded a mean score of 3.1606, indicating that many employees also feel their digestive health is suffering due to job-related stress. With a standard deviation of 1.25655, the spread in responses is moderate, suggesting that this experience is common but not universal. Stress can directly affect gastrointestinal function causing issues like ulcers, acid reflux, irritable bowel syndrome (IBS), or chronic stomach discomfort. These findings underscore that work-related stress is not merely a psychological burden but also a tangible physical health consequence that can diminish quality of life and elevate long-term medical risks.

The statement *"I often feel irritable because of my work"* had a mean score of 3.0803 among 249 respondents, indicating that many employees experience

heightened irritability as a result of their job. With a notably high standard deviation of 1.80098, the responses vary widely as some individuals may rarely feel irritable, while others report frequent frustration. This irritability likely stems from a combination of work pressures, demanding workloads, interpersonal conflicts, or lack of support, which can accumulate and manifest as mood disturbances. Persistent irritability can strain professional relationships, decrease productivity, and negatively affect overall workplace morale.

The statement *"I am satisfied with my current job"* received a mean score of 3.0643 among 249 respondents, indicating a generally neutral stance toward job satisfaction. This score doesn't show people are totally unhappy, but it doesn't mean they're really satisfied either. A lot of employees might feel stuck in the middle okay with things like job purpose or stability, but frustrated by stuff like too much work, not enough support, or a lack of resources. The standard deviation of 1.65706 reflects a wide range of responses, indicating that while some employees report genuine job satisfaction, others express clear dissatisfaction.

The statement *"I feel that my sleep quality has deteriorated due to work-related factors"* received a mean score of 3.0562, further emphasizing the toll that job-related stress and demands can take on overall well-being. Sleep disturbances whether due to irregular shifts, mental strain, or physical exhaustion can lead to fatigue, reduced cognitive function, and worsening mental health over time. The standard deviation of 1.47453 suggests varied experiences, but enough consistency to show that sleep quality is a concern for many.

From 249 responses, the statement *"I have experienced feelings of depression related to my work environment"* had a mean score of 2.9839, showing moderate

worry for employees' emotional well-being at work. Despite not scoring high, the score shows that a significant number of respondents had felt depressed due to work conditions or atmosphere. The standard deviation of 1.52392 suggests that while some employees rarely experience these feelings, others report them frequently. This variation (1.00 to 5.00) highlights the emotional toll certain work conditions can have, with a notable portion of employees experiencing symptoms associated with job-induced depression. High stress, poor communication, lack of support, workplace conflict, and undervaluation may contribute. These findings emphasise the necessity of creating a supportive and mentally healthy workplace culture where employees feel safe expressing their emotions and are given enough mental health tools and preventive strategies.

The statement '*I often feel fatigued due to my workload*' received a mean score of 2.7349 from 249 respondents, indicating moderate agreement and suggesting that a substantial number of employees regularly experience work-related fatigue. This finding highlight fatigue as a recurring concern within the workforce. The standard deviation of 1.44873 and the full response range from 1.00 to 5.00 indicate considerable variability. While the workload may be manageable for some, others report frequent or persistent exhaustion. Long hours, limited staffing, high patient loads, and emotionally draining work conditions can cause chronic weariness, especially in demanding professions like healthcare. Fatigue lowers productivity, attention to detail, and job satisfaction, as well as personal well-being. Workload balance, relaxation breaks, and a recovery-focused culture can reduce fatigue and boost performance and morale.

Table 4.5
Descriptive statistics for personal health issue items among AMOs

	N	Min	Max	Mean	Std. Deviation
I frequently experience headaches related to work demands	249	1.00	5.00	3.5703	1.56965
I often feel fatigued due to my workload	249	1.00	5.00	2.7349	1.44873
I have experienced feelings of depression related to my work environment.	249	1.00	5.00	2.9839	1.52392
I often feel irritable because of my work	249	1.00	5.00	3.0803	1.80098
I feel that work-related stress negatively affects my psychological health	249	1.00	5.00	3.2129	1.45873
I believe that work-related stress has negatively impacted my cardiovascular health	249	1.00	5.00	3.2088	1.29069
I feel that my gastrointestinal health has been adversely affected by my work environment	249	1.00	5.00	3.1606	1.25655
I am satisfied with my current job	249	1.00	5.00	3.0643	1.65706
I find that my working hours negatively affect my social life	249	1.00	5.00	3.4578	1.56551

I feel that my sleep quality has deteriorated due to work-related factors.	249	1.00	5.00	3.0562	1.47453
Valid N (listwise)	249				

4.4.4 Descriptive analysis of absenteeism

Table 4.6 presents descriptive statistics for the item absenteeism. The statement *"I perceive a lack of management support regarding absenteeism"* received a mean score of 3.6145 from 249 respondents, indicating a strong perception among employees that management does not provide adequate support when staff need to be absent from work. This high mean suggests that many employees may feel pressured to attend work even when they are unwell, dealing with personal issues, or in need of rest, potentially due to a lack of empathy, inflexible policies, or fear of repercussions. The standard deviation of 1.40705 shows that while some employees may not share this sentiment, the overall trend suggests the need for a better understanding, flexibility, and trust from leadership regarding staff absences.

The statement *"I have been directed by management to come to work despite personal circumstances"* received a mean score of 3.4257, suggesting that a notable portion of employees feel pressured by management to attend work even when personal situations, such as illness or family emergencies, would warrant time off. This score indicates that some employees experience a lack of empathy or flexibility in their workplace policies, which could be linked to a high-stakes environment or inadequate staff coverage. The standard deviation of 1.45757 indicates a moderate level of

variation, meaning that some employees may not feel this pressure, others may feel strongly directed by management to work under conditions that could potentially impact their well-being.

The statement *"I struggle to find a replacement when I need to take time off from work"* had a mean score of 3.3896, which highlights a recurring difficulty many employees face in arranging for substitutes when they need time off. This score suggests that, although not every employee experiences this issue, a significant number struggle with the lack of support or flexibility when they need a break. The standard deviation of 1.53614 shows a broad range in responses, which could reflect differences in staffing levels, workplace policies, or individual roles that may either facilitate or complicate finding coverage.

The statement *"I feel my attendance decisions are influenced by having no sick days left to use"* had a mean score of 3.3695, reflecting that the absence of available sick leave is a significant factor for many employees in deciding whether to attend work when unwell. This score suggests that a substantial number of employees feel compelled to work even when they are sick because they have no available sick days left, which could stem from limited leave policies or a lack of paid time off. The standard deviation of 1.43685 suggests a variation in how strongly employees feel about this issue, with some potentially feeling pressured to attend work due to the lack of available sick days, while others may have greater flexibility in managing their absences.

The statement "*I am sometimes unaware of potential contagions that I might spread to coworkers or patients"* had a mean score of 3.1928, highlighting concerns about health and safety in the workplace. This score suggests that, although employees

may generally be mindful of infection control practices, there are occasions when they are unaware of potential risks or the transmission of contagious diseases, whether due to insufficient communication or unclear policies. The standard deviation of 1.50637 reflects variability, indicating that while some employees are highly aware and cautious about contagions, others may not always recognize the risks or feel adequately informed, especially in fast-paced or understaffed environments.

The statement *"Most of the time, I feel physically and mentally capable of working"* received a mean score of 3.1888, indicating that most employees feel somewhat capable of performing their duties on a physical and mental level. This score suggests that although majority of employees feel capable of managing their tasks, this does not necessarily reflect a strong sense of health or well-being, and many may still be experiencing significant physical or emotional strain. The standard deviation of 1.73453 points to significant variation, with some employees possibly feeling energized and competent, while others might be struggling more frequently, indicating different levels of stress, fatigue, or workload demands across the workforce.

On the other hand, the statement *"I feel a strong sense of responsibility toward my patients and coworkers when deciding whether to go to work"* scored a mean of 3.0683, reflecting that a significant portion of employees feel a deep sense of duty and responsibility toward their patients and colleagues, which can weigh heavily on their decision to attend work. This high sense of responsibility, while noble, can lead to overwork and presenteeism, where employees push themselves to work even when it may not be healthy for them. The standard deviation of 1.63855 indicates that this sense of responsibility is a strong factor for many employees, but again, it varies across individuals, with some possibly feeling less compelled by this duty.

The statement *"I prefer not to use my time-off unless absolutely necessary"* received a mean score of 3.0442, suggesting that many employees are hesitant to take time off unless it is essential. This response implies that there may be a cultural or personal reluctance to use leave, possibly due to concerns about workload, the fear of being seen as unreliable, or the perception that taking time off could negatively affect the team or work environment. The standard deviation of 1.58434 indicates that while some employees may actively avoid using their time off, others might feel more comfortable taking leave when needed, showing a diversity of attitudes toward time-off policies.

In parallel, the statement *"I perceive my workplace is often understaffed"* yielded a mean of 2.9277, reflecting a moderate concern about insufficient staffing levels. While this score is lower than the previous item, it still suggests that many employees frequently experience or witness understaffing, which can increase workload pressure, reduce care quality, and heighten stress levels. The standard deviation of 1.62974 indicates considerable variation in responses, suggesting that understaffing may not be a constant issue across all units or shifts but remains a common and impactful concern for many.

The statement *"I feel that the fear of disciplinary action affects my decision to attend work"* received a mean score of 2.9036, indicating that many employees feel their attendance decisions are influenced by the fear of consequences, rather than purely by personal health or well-being. This reflects a workplace culture where employees may feel pressured to attend work even when it is not in their best interest, possibly due to strict attendance policies or fear of negative repercussions. The

standard deviation of 1.39076 suggests that while this concern is relatively common, it is not universally felt, as some employees may feel less affected by such pressure.

Table 4.6
Descriptive statistics for absenteeism items among AMOs

	N	Min	Max	Mean	Std. Deviation
I perceive a lack of management support regarding absenteeism.	249	2.00	5.00	3.6145	1.40705
I perceive my workplace is often understaffed.	249	1.00	5.00	2.9277	1.62974
I feel that the fear of disciplinary action affects my decision to attend work	249	1.00	5.00	2.9036	1.39076
I feel a strong sense of responsibility toward my patients and coworkers when deciding whether to go to work	249	1.00	5.00	3.0683	1.63855
Most of the time, I feel physically and mentally capable of working	249	1.00	5.00	3.1888	1.73453
I struggle to find a replacement when I need to take time off from work	249	1.00	5.00	3.3896	1.53614

I have been directed by management to come to work despite personal circumstances.	249	1.00	5.00	3.4257	1.45757
I am sometimes unaware of potential contagions that I might spread to coworkers or patients	249	1.00	5.00	3.1928	1.50637
I prefer not to use my time-off unless absolutely necessary.	249	1.00	5.00	3.0442	1.58434
I feel my attendance decisions are influenced by having no sick days left to use	249	1.00	5.00	3.3695	1.43685
Valid N (listwise)	249				

4.5 QQ PLOT

4.5.1 QQ plot for inadequate staffing

The graph presented in Figure 4.7 shows a histogram of the normal Q-Q Plot of inadequate staffing. On the x-axis are the observed values, ranging from approximately 1.5 to 7.5, and on the y-axis are the expected normal values, also ranging from about 1.5 to 7.5. The solid black diagonal line represents the ideal case where observed values perfectly match the normal distribution. Most of the data points cluster between 2 and 4 on the observed axis and between 2 and 4 on the expected axis, showing reasonable alignment with the normal line. However, points above 4 on the observed axis (e.g., 5, 6, and 7) increasingly deviate from the line, with expected

values around 6 and 7 not matching the observed values, indicating the presence of heavy tails or skewness suggesting the data likely deviate from normality, particularly in the higher range.

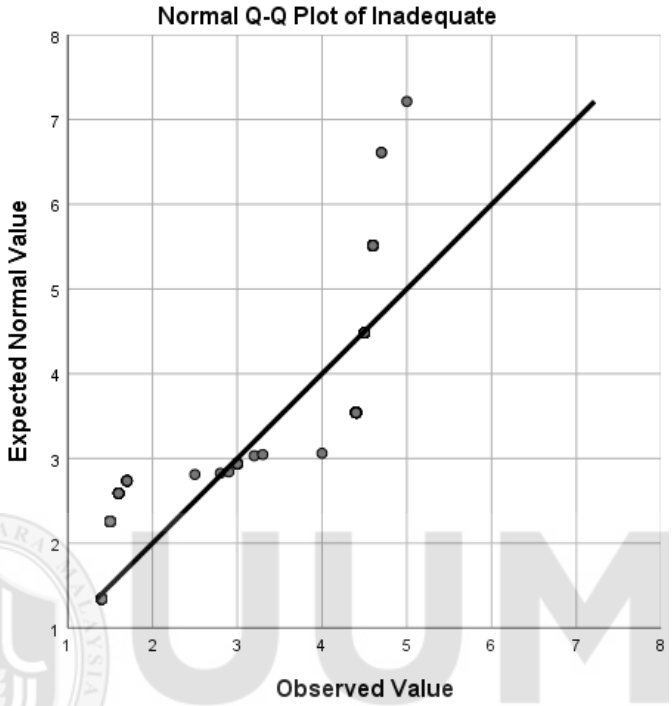

Figure 4.7
Histogram Plot and Normal Probability for inadequate staffing

4.5.2 QQ plot for personal health issues

The graph presented in Figure 4.8 shows a histogram of the normal Q-Q Plot of personal health issues. The data points generally follow the diagonal line from (0, 0) to about (6, 6.5), indicating a moderate alignment with normality. However, slight deviations are observed at the lower and upper ends, one point near (1.3, 0) and another around (5.2, 6.4), suggesting mild skewness or potential outliers. Most data points cluster between observed values 2 and 4, with expected normal values from 2 to 4.5, closely aligning with the line. Overall, the data for the "Personal" variable shows an approximate normal distribution with slight deviation at the extremes.

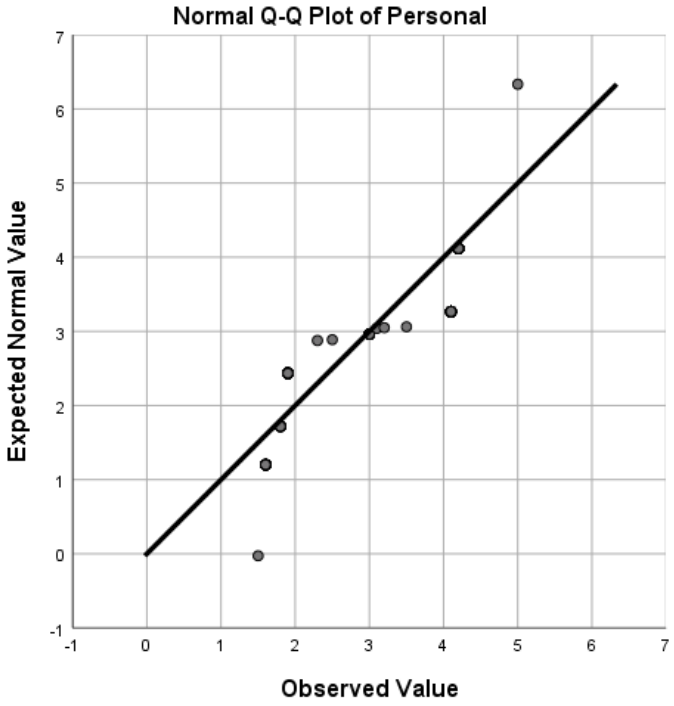

Figure 4.8
Histogram Plot and Normal Probability for personal health issues

4.5.3 QQ plot for absenteeism

The graph presented in Figure 4.9 shows a histogram the normal Q-Q Plot of absenteeism. In this plot, the points lie very closely along the diagonal line, indicating that the distribution of absenteeism scores is approximately normal. There are minor deviations, but no extreme outliers are apparent, and the alignment shows greater conformity with the expected normal distribution compared to the inadequate staffing and personal health issue plots. This suggests that absenteeism data follow the normal distribution more closely, especially within the central range from approximately (3.0, 3.0) to (4.5, 4.5). Overall, absenteeism demonstrates the strongest normality pattern among the three variables assessed.

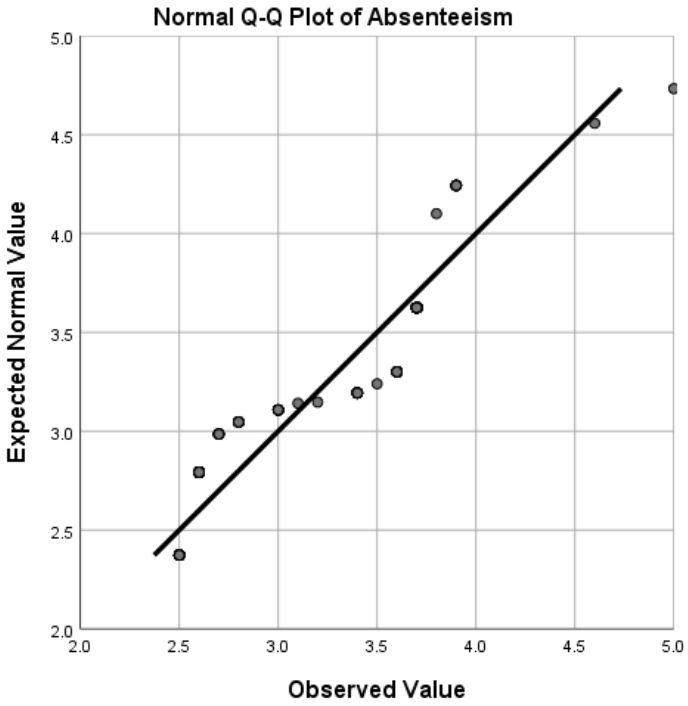

Figure 4.9
Histogram Plot and Normal Probability for absenteeism

4.6 GOODNESS OF MEASURES (RELIABILITY ANALYSIS)

The results of the Cronbach's Alpha reliability analysis indicate that all constructs used in the study demonstrate excellent internal consistency in Table 5.0. The inadequate staffing construct (IV1), also measured by 10 items (C1–C10), reported an identical alpha value of 0.989, indicating that the items consistently measure the intended concept. The personal health issue construct (IV2) measured using 10 items (D1–D10) yielded a Cronbach's Alpha of 0.913, which also falls within the range of excellent reliability. The dependent variable, absenteeism, measured by 10 items (E1–E10), showed a reliability coefficient of 0.982. These results confirm that the measurement scales used for all constructs are highly reliable.

Table 5.0
Summary of Cronbach's Alpha reliability analysis

Construct	Items measuring this construct	Reliability Coefficient (Alpha) (N=…)
IV 1 (Inadequate staffing)	C1,C2,C3,C4,C5,C6,C7,C8,C9,C10	0.989
IV 2 (Personal health issue)	D1,D2,D3,D4,D5,D6,D7,D8,D9,D10	0.913
DV (Absenteeism)	E1,E2,E3,E4,E5,E6,E7,E8,E9,E10	0.982

4.7 Correlation analysis

The correlation analysis based on Table 5.1 reveals strong, positive, and statistically significant relationships among inadequate staffing, personal health issues, and absenteeism. The correlation between inadequate staffing and absenteeism is r = 0.961, while the correlation between personal health issues and absenteeism is r = 0.958, both with p-values of 0.000, indicating significance at the 0.01 level. Additionally, inadequate staffing and personal health issues are highly correlated with each other (r = 0.987, p = 0.000). These results suggest that both inadequate staffing and personal health issues are strongly associated with increased absenteeism among healthcare workers, and they may also be interrelated, highlighting the need to address both factors simultaneously to reduce absenteeism effectively.

Table 5.1
Summary of Correlation analysis

Correlations				
		Inadequate staffing	**Personal Health Issue**	**Absenteeism**
Inadequate staffing	Pearson Correlation	1	0.987	0.961
	Sig. (2-tailed)		0.000	0.000
	N	249	249	249
Personal Health Issue	Pearson Correlation	0.987	1	0.958
	Sig. (2-tailed)	0.000		0.000
	N	249	249	249
Absenteeism	Pearson Correlation	0.961	0.958	1
	Sig. (2-tailed)	0.000	0.000	
	N	249	249	249

4.8 MULTIPLE REGRESSION ANALYSES

4.8.1 Model Summary

Based on the model summary Table 5.2, the multiple regression analysis showed a strong relationship between absenteeism and the independent variables personal health issues and inadequate staffing with a multiple correlation coefficient (R) of 0.963. The R Square value of 0.927 explains 92.7% of the variance in

absenteeism among healthcare workers, suggesting that these two factors are strong predictors. The Adjusted R Square also remains the same at 0.927, confirming the model is not overfitted and maintains robustness. Additionally, the standard error of the estimate is 0.14663, indicating that the predicted values are closely aligned with the actual data. Overall, this model demonstrates that personal health issues and inadequate staffing are significant predictors of absenteeism, with a high accuracy and explanatory power.

Table 5.2
Model Summary

Model summary			
R	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
0.963	0.927	0.927	0.14663

4.8.2 ANOVA

The ANOVA Table 5.3 shows that the regression model is statistically significant in predicting absenteeism among healthcare workers. The F-value of 1570.257 with a significance level (Sig.) of .000 indicates that the overall model, which includes personal health issues and inadequate staffing as predictors, significantly explains the variance in absenteeism. Since the p-value is less than 0.05, we reject the null hypothesis and conclude that at least one of the predictors makes a significant contribution to the model. The regression sum of squares (67.522) is substantially larger than the residual sum of squares (5.289), demonstrating that a large portion of the variability in absenteeism is explained by the predictors.

Table 5.3
ANOVA

ANOVA						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	67.522	2	33.761	1570.257	0.000
	Residual	5.289	246	0.22		
	Total	72.811	248			

4.8.3 Coefficients

The regression coefficient analysis from Table 5.4 examined the influence of inadequate staffing and personal health issues on absenteeism. The model's constant (intercept) is 1.808 and statistically significant ($p = 0.000$), indicating the baseline level of absenteeism when all predictors are held constant. Inadequate staffing shows a positive and significant effect ($B = 0.266$, $\beta = 0.703$, $t = 6.177$, $p < 0.001$), indicating that as perceptions of inadequate staffing increase, absenteeism also increases. Personal health issues also have a positive and statistically significant impact on absenteeism ($B = 0.367$, $\beta = 0.768$, $t = 4.401$, $p < 0.001$), showing that personal health problems are a strong predictor of absenteeism. Among the three predictors, personal health issues have the highest standardized coefficient ($\beta = 0.768$), suggesting it is the most influential factor in predicting absenteeism when compared on a standardized scale.

Table 5.4
C*oefficient analysis*

Model		Beta (B)	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	Statistics VIF
1	(Constant)	1.808	0.060		30.037	0.000	
	Inadequate staffing	0.266	0.043	0.703	6.177	0.000	44.995
	Personal health issue	0.367	0.083	0.768	4.401	0.000	105.802

a. Dependent Variable : Absenteeism

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1 CONCLUSION

This chapter presents an overview of the research, findings, implications, and conclusions, based on the research objectives and questions. It examines the relationships explored, highlights the study's contributions and limitations, and provides recommendations for future research. The final section summarizes the overall conclusion of the study.

This study analyze the factors that influence absenteeism among AMOs in Hospital Kuala Lumpur, specifically examining the roles of inadequate staffing, and personal health issues. Specifically, it investigated the relationship between inadequate staffing, and personal health issues in defining the factors of absenteeism among AMOs. By identifying these variables, the study contributes valuable insights for hospital administrators and policymakers to develop targeted strategies aimed at reducing absenteeism and improving workforce well-being and efficiency.

In conclusion, the hypothesis summarized in Table 5.1 confirms that inadequate staffing and personal health issues are crucial factors that influence absenteeism. Rauf et al. (2024) showed how poor staffing creates a resource-poor environment, triggering loss spirals where staff lack the contextual resources needed, leading to stress and increased absenteeism. Karanika-Murray and Biron (2020) explain how working while ill (presenteeism) drains health, emotional energy, and performance capacity, heightening the risk of subsequent absenteeism. Future research

should focus on developing and evaluating targeted intervention strategies to reduce absenteeism among AMOs. This includes exploring the effectiveness of organizational support programs such as stress management training and resilience workshops to combat implementing staffing optimization approaches to ensure adequate workforce distribution and introducing health promotion initiatives that address both physical and mental health concerns.

Table 5.5
Hypothesis summary

Hypothesis	Decision
The relationship between inadequate staffing and absenteeism among AMOs.	Accepted
The relationship between personal health issues and absenteeism among AMOs.	Accepted

5.2 Relationship between inadequate staffing and personal health issue with absenteeism among Assistant Medical Officers.

This study investigated the factors influencing absenteeism among AMOs in Hospital Kuala Lumpur.

5.2.1 Relationship between inadequate staffing and absenteeism among Assistant Medical Officers.

Inadequate staffing is a significant organizational factor that contributes to absenteeism among AMOs. The multiple regression result shows a strong positive

relationship, indicates that inadequate staffing is strongly associated with increased absenteeism. A cross-sectional study in primary healthcare identified poor or inadequate facility staffing as a significant health system structural driver of absenteeism (Klootwijk et al., 2025). When staffing levels are insufficient, existing personnel are forced to take on additional workloads, leading to physical fatigue, psychological stress, and decreased job satisfaction. Rauf et al. (2024) demonstrated that in healthcare settings, poor staffing not only limits access to essential support systems but also creates a resource-poor environment that triggers stress and burnout, both of which are closely linked to increased absenteeism. For AMOs working in high-pressure hospital environments, these compounding factors make taking time off a necessary coping mechanism, further worsening the staffing issue in a vicious cycle.

5.2.2 Relationship between personal health issues and absenteeism among Assistant Medical Officers.

Personal health issues are a significant contributor to absenteeism among AMOs, particularly due to the physically and emotionally demanding nature of their work. Poor physical health, chronic conditions, and mental health challenges can significantly impair an AMO's ability to perform consistently, often resulting in the need to take leave for recovery or medical treatment. Karanika-Murray and Biron (2020) highlight that continued work during illness (presenteeism) can further exhaust these limited resources, eventually leading to greater absenteeism. In high-stress environments like hospitals, where AMOs are expected to maintain high performance under pressure, personal health challenges are both a direct and indirect driver of increased absenteeism.

Personal health issues have been shown to significantly influence absenteeism among healthcare workers. This variable demonstrates a consistently strong effect in multiple regression models, underscoring its role as a key contributing factor. The relationship remains statistically significant even when controlling for other variables, indicating that poor health independently contributes to increased work absence. In support of this, Wee et al. (2019) identified general physical health as a strong predictor of absenteeism. Their study found that each one-point decline in self-rated physical health for instance, from 'Good' to 'Fair' was associated with a measurable increase in the number of days absent due to illness. These findings highlight that even minor deteriorations in health status can lead to increased absenteeism, emphasizing the importance of workplace health support and early intervention strategies.

5.3 IMPLICATIONS OF THE STUDY

This study provides a detailed of factors influencing absenteeism among AMOs in Hospital Kuala Lumpur, focusing on key aspects, which are inadequate staffing and personal health issues.

5.3.1 Implications of inadequate staffing on the absenteeism among AMOs

Inadequate staffing poses serious implications for absenteeism among AMOs, as it is a direct contributor to work overload, fatigue, and psychological strain. When healthcare institutions operate with insufficient personnel, the existing workforce is required to absorb the additional workload, often extending beyond their defined responsibilities and capacity. For AMOs, this can mean longer shifts, fewer breaks, increased patient loads, and the constant pressure to perform under demanding

conditions. Such environments create a breeding ground for stress, physical exhaustion, and emotional burnout.

For AMOs, the consequences of chronic staffing shortages go beyond individual stress and fatigue. The ongoing strain can compromise their physical health, exacerbate underlying mental health issues, and erode professional motivation. This not only increases the risk of absenteeism but also triggers a vicious cycle. Each absence further reduces staffing levels, intensifying the pressure on remaining staff, and perpetuating the pattern. Over time, this cycle can contribute to a breakdown in team dynamics, reduced morale, and compromised patient safety and care quality.

Addressing inadequate staffing, therefore, is not just an operational issue. This variable is also a fundamental component of workforce health and sustainability. Strategic workforce planning, appropriate task distribution, and timely recruitment are essential measures to prevent overwork and ensure a more stable and resilient AMO workforce. Ensuring sufficient staffing is key to breaking the cycle of absenteeism and promoting both staff well-being and quality patient care.

5.3.2 Implications of personal health issues on absenteeism among AMOs

Personal health issues have profound and multifaceted implications for absenteeism among AMOs, as both physical and mental health conditions can significantly impair their ability to sustain consistent and effective workplace attendance. Due to the physically demanding and emotionally intense nature of their roles, AMOs are particularly vulnerable to a range of health challenges. These may include chronic illnesses such as hypertension and diabetes, musculoskeletal pain from

prolonged standing or repetitive tasks, and psychological issues such as anxiety, depression, or burnout.

The nature of their responsibilities often require quick decision-making, patient interaction, procedural precision, and emotional resilience. As a result, even seemingly minor health problems can compromise their performance and safety. For example, musculoskeletal pain may reduce mobility or cause fatigue during long procedures, while mental fatigue can lead to lapses in concentration, increasing the risk of errors in high-stakes clinical settings.

Karanika-Murray and Biron (2020) emphasize the dangers of presenteeism, the act of continuing to work while unwell. This behavious is prevalent among healthcare professionals who often feel a strong sense of duty or pressure not to let their team down. While presenteeism may appear to mitigate staffing shortages in the short term, it often results in worsening health conditions, lower productivity, and greater emotional strain. Over time, this can lead to more severe health deterioration, culminating in longer periods of absenteeism as individuals are forced to take extended leave for recovery.

For AMOs, absenteeism in this context should not be viewed solely as a sign of disengagement or irresponsibility, but rather as a necessary response to preserve their health and prevent further decline. It often functions as a protective and restorative mechanism, allowing time for physical healing or mental recovery. However, when not addressed at the organizational level, repeated health-related

absenteeism can lead to staffing instability, reduced service continuity, and a feedback loop that places additional strain on the remaining workforce.

To mitigate this, healthcare institutions must prioritize preventive health strategies, ensure early intervention through regular check-ups and mental health screenings, and foster a work culture that normalizes and supports seeking help and taking necessary leave. By addressing the health needs of AMOs proactively, organizations can reduce absenteeism while promoting a healthier, more resilient workforce.

5.4 LIMITATIONS OF THE STUDY

This study has several limitations that should be acknowledged. First, the data were collected from a single healthcare institution Hospital Kuala Lumpur which may limit the generalizability of the findings to other hospitals or regions with different staffing structures and work environments. While this facility is one of the largest and most prominent hospitals in Malaysia, its unique characteristics, such as size, patient volume, management style, and staffing structure, may not reflect the conditions present in smaller, rural, or private healthcare settings. As a result, the findings may lack generalizability beyond this specific context. The challenges, stressors, and organizational cultures faced by AMOs in other institutions may differ significantly, which could influence the factors associated with absenteeism. Therefore, caution should be exercised when attempting to apply these results to other hospitals or healthcare regions with different operational dynamics.

Secondly, the study employed a cross-sectional research design, which inherently limits the ability to establish causality between the independent variables,

which are inadequate staffing, and personal health issues, and the dependent variable, which is absenteeism. In a cross-sectional study, data are collected at a single point in time, providing only a snapshot of the participants' experiences and conditions. This means that while significant associations or correlations may be identified, it is not possible to determine the direction of the relationships or whether one variable directly causes changes in another. Longitudinal or experimental research designs would be required to establish temporal sequencing and stronger evidence for causality. Therefore, the findings of this study should be interpreted as correlational and not indicative of direct cause-and-effect relationships.

Thirdly, the study relied heavily on self-reported questionnaires as the primary method of data collection, which introduces the potential for response bias. Participants may have responded to questions in a way they perceived as more socially acceptable or favorable, rather than providing completely honest or accurate answers. This phenomenon, known as social desirability bias, can lead to underreporting of sensitive issues such as absenteeism, stress, or personal health problems. For example, AMOs may downplay the frequency of their absences due to fear of judgment or professional stigma. Additionally, recall bias may occur if respondents struggle to accurately remember their absenteeism patterns or health experiences. These biases can compromise the validity and reliability of the data, potentially affect the accuracy of the study's findings and leading to either underestimation or overestimation of the true relationships among the variables.

Additionally, this study did not account for potential confounding variables that may have influenced the relationships between inadequate staffing, personal

health issues, and absenteeism. Factors such as organizational culture, leadership style, interpersonal dynamics within the workplace, and external socio-economic pressures (e.g., financial stress, family responsibilities, or societal expectations) were not measured or controlled in the analysis. These variables can significantly shape employees' experiences and behaviors and may have either amplified or mitigated the effects of the primary predictors. For example, a supportive leadership environment might buffer the negative impact of stress-related health issues, while a toxic work culture could exacerbate absenteeism regardless of staffing levels. The absence of these contextual factors limits the comprehensiveness of the study's explanatory model.

To address this limitation, future research should consider adopting longitudinal research designs, which can better capture the temporal and potentially causal relationships between variables over time. Additionally, expanding the study across multiple healthcare institutions, including those from different geographic regions, sizes, and operational models would enhance the generalizability and applicability of the findings. Incorporating a broader set of organizational and socio-economic variables would also contribute to a more holistic understanding of the complex factors that drive absenteeism among healthcare professionals.

5.5 RECOMMENDATION

Based on the findings of this study, several practical recommendations can be made to address and reduce absenteeism among AMOs. The hospital should consider organizing regular mental health screenings to identify early signs of psychological distress, anxiety, or depression among staff. Early detection can lead to timely interventions before these issues escalate and contribute to prolonged absences.

Establishing formal peer support systems can also provide AMOs with a platform to share experiences, seek emotional support, and foster a sense of solidarity and resilience within the workforce. Such initiatives not only address emotional well-being but also strengthen teamwork and morale, which are critical in high-stress clinical environments. By prioritizing the mental health and emotional resilience of AMOs, hospital administrators can foster a healthier and more sustainable workforce, ultimately reduce rates of absenteeism and improve patient care outcomes.

Additionally, enhancing staffing adequacy should be a key priority in efforts to reduce absenteeism among AMOs. The study found a strong association between inadequate staffing and increased absenteeism, highlighting the need for better workforce planning and more effective recruitment strategies. Hospital administrators should conduct regular workforce assessments to identify staffing gaps and ensure that the number of AMOs is aligned with patient demand and service delivery requirements. Strategic recruitment drives, along with initiatives to retain experienced staff, can alleviate excessive workload pressures on current team members and prevent stress-related health issues.

Beyond staffing numbers, it is equally important to cultivate a supportive and healthy work environment. Fostering a positive workplace culture that promotes open communication between staff and management can boost morale and help resolve issues before they escalate. Encouraging feedback, involving AMOs in decision-making processes, and ensuring that their concerns are heard and acted upon can strengthen engagement and reduce stress-related absenteeism.

Promoting work-life balance is also critical. This can include implementing flexible scheduling, ensuring adequate rest periods, and respecting boundaries between work and personal time. When staff feel supported both professionally and personally, they are more likely to maintain their physical and mental well-being, leading to improved attendance and overall performance. By addressing both systemic staffing issues and the broader work environment, healthcare institutions can foster a more resilient and committed workforce.

To further support the physical and mental well-being of AMOs, healthcare institutions should implement comprehensive health and wellness initiatives. One critical step is the provision of regular health check-ups, which can help detect early signs of chronic illnesses, fatigue-related conditions, or mental health concerns. Proactive monitoring not only benefits the individual staff member but also contributes to a healthier and more sustainable workforce by preventing health-related absenteeism before it becomes severe or prolonged.

The introduction of flexible leave policies can play a vital role in promoting work-life balance and reducing stress. Policies that allow for compassionate leave, mental health days, or flexible scheduling during high-demand periods acknowledge the personal and well-being needs of healthcare workers and demonstrate organizational empathy. Such flexibility can help prevent stress-related health issues and allow staff to recover from minor illnesses or stress before it leads to more serious absenteeism or turnover.

Another essential consideration is ensuring that AMOs have direct and confidential access to occupational health services. These services should include both physical and mental health support, such as counselling, physiotherapy, and stress management resources. When healthcare workers feel supported in managing their health and well-being, they are more likely to remain engaged, productive, and committed to their roles. Integrating these services into the hospital's health infrastructure reflects a commitment to staff welfare and can significantly reduce avoidable absenteeism.

The development and refinement of future organizational policies should be guided by the continuous monitoring of absenteeism trends and the regular collection of employee feedback. By establishing a system for ongoing data tracking, hospital management can identify patterns in absenteeism, such as frequent time-off requests during certain shifts, departments with higher absence rates, or recurring reasons for leave. This data-driven approach enables early identification of emerging issues, allowing for timely and targeted interventions before absenteeism escalates into a systemic problem.

In addition to quantitative data, qualitative insights gathered through regular staff feedback via surveys, suggestion boxes, or focus group discussions can offer valuable perspectives on the underlying causes of absenteeism. Listening to the lived experiences of AMOs provides context that numbers alone cannot capture, such as dissatisfaction with workload distribution, interpersonal conflicts, or unmet personal support needs.

Integrating both types of information, statistical trends and employee feedback will allow organizational leaders to adopt more proactive, responsive, and evidence-based strategies. This ensures that policies remain relevant, practical, and aligned with the evolving needs of the workforce. Moreover, involving employees in the policy development process fosters a sense of ownership and trust, which can improve morale, engagement, and ultimately reduce absenteeism in the long term.

5.6 CONCLUSION

This study highlights the significant influence of inadequate staffing and personal health issues on absenteeism among AMOs at Hospital Kuala Lumpur. Each of these factors was found to be strongly associated with increased absenteeism, indicating that both organizational and individual-level stressors play a critical role in workforce attendance.

The practical implications of this study are substantial. Addressing absenteeism among AMOs requires a dual-level strategy that targets both organizational systems and individual wellbeing. At the organizational level, hospital leadership must prioritize improvements in staffing adequacy to reduce workload pressure. Additionally, fostering a culture of psychological safety, where staff feel supported and valued, can significantly mitigate emotional exhaustion and presenteeism. Investment in sustainable work environments through fair scheduling, adequate rest periods, wellness initiatives, and mental health resources can help preserve employees' emotional and physical resources, ultimately enhancing attendance and performance.

On the individual level, AMOs must be take proactive steps to care for their health. This includes access to confidential counseling services, health screenings, and stress management programs that promote resilience and early intervention. Moving forward, a coordinated and collaborative approach is vital. Healthcare institutions must embrace proactive, while also equipping individuals with the tools and support systems to protect and replenish their internal resources. Only through this balanced commitment can a healthy, reliable, and sustainable healthcare workforce be achieved.

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APPENDIX

APPROVAL LETTER

HKL/HCRC/AK-02-02

CLINICAL RESEARCH CENTRE HOSPITAL KUALA LUMPUR
TINGKAT 3, BANGUNAN PENTADBIRAN & KEWANGAN
HOSPITAL KUALA LUMPUR
TEL 03 26155555 EXT. 6262 Email: crc.hkl@moh.gov.my

Borang *Head of Department & Director of Hospital Kuala Lumpur Agreement*

Strictly for use within Hospital Kuala Lumpur ONLY

Principal Investigator/Site PI *Penyelidik Utama/Penyelidik setempat*	MOHAMMAD RAZMANI BIN CHE RASHID
Research Title *Tajuk Penyelidikan*	FACTORS INFLUENCING ABSENTEEISM AMONG ASSISTANT MEDICAL OFFICERS IN HOSPITAL KUALA LUMPUR
NMRR Registration No. *No. Pendaftaran NMRR*	NMRR ID-25-00428-BWL
CRC Registration No. *No. Pendaftaran CRC*	CRCHKL-2025-04-079

HEAD OF DEPARTMENT AGREEMENT
PERSETUJUAN KETUA JABATAN

1. I certify that I have read the project details in this research project application named above.
   Saya mengesahkan bahawa saya telah membaca butiran projek penyelidikan yang dinamakan di atas.
2. I certify that I am aware of this research project and the resource implications for this Department and site.
   Saya mengaku bahawa saya faham projek penyelidikan ini dan implikasi sumber bagi Jabatan ini dan dipusat ini
3. I certify that the research is appropriate to be conducted within this Department and at this site.
   Saya mengaku bahawa penyelidikan adalah sesuai untuk dijalankan di Jabatan ini dan dipusat ini
4. I certify that there are suitable and adequate facilities and resources for the research project to be conducted at this site. This is for 'Actual costs' and 'In kind' contribution.
   Saya mengesahkan bahawa terdapat kemudahan dan sumber yang sesuai dan mencukupi untuk projek penyelidikan yang akan dijalankan di Jabatan. Ini adalah untuk 'kos sebenar' dan 'dalam jenis' sumbangan.
5. My signature indicates that I support this research project being carried out using such resources.
   Tandatangan saya menunjukkan bahawa saya menyokong projek penyelidikan ini dijalankan dengan menggunakan sumber-sumber tersebut.

Department *Jabatan*	**Name of Head of Department** *Nama Ketua Jabatan*	**Signature and official stamp** *Tandatangan dan Cop Rasmi*	**Date** *Tarikh*
Penyeliaan.	HJ. MOHD SULAIMAN BIN DALIMI Ketua Penyelia Hospital Penolong Pengawal Perubatan U12 Bahagian Penyeliaan Hospital Hospital Kuala Lumpur No. LPP 3561		9/4/2025.

No. Keluaran : 01 Pindaan : 01 Tarikh Kuatkuasa : 1 Jun 2020

DIRECTOR OF HOSPITAL KUALA LUMPUR AGREEMENT
PERSETUJUAN PENGARAH HOSPITAL KUALA LUMPUR

My signature indicates that I :
Tandatangan saya menunjukkan bahawa saya :

☑ Authorise this research project to commence in Hospital Kuala Lumpur on the condition that all the scientific and ethical aspects of the Medical Research Ethics Committee approved protocol are met.
Memberi kebenaran projek penyelidikan ini bermula di Hospital Kuala Lumpur dengan syarat semua aspek saintifik dan etika protokol yang telah diluluskan oleh Jawatankuasa Penyelidikan Etika Perubatan KKM, dipenuhi oleh penyelidik.

☐ Do not authorise this research project to commence in Hospital Kuala Lumpur.
Tidak memberi kebenaran projek penyelidikan ini dijalankan di Hospital Kuala Lumpur.

Name of Hospital Director *Nama Pengarah Hospital*	
Signature and official stamp *Tandatangan dan Cop Rasmi*	DR. KIRAN GANESH BALAKRISHNAN MPM 59099 TIMBALAN PENGARAH (PERUBATAN II) B.P. PENGARAH HOSPITAL KUALA LUMPUR
Date *Tarikh*	10/4/2025

(FOR CRC HKL OFFICE USE)
(UNTUK KEGUNAAN PEJABAT CRC HKL)

The Investigator named above has provided to CRC HKL before the commencement of his/her research, proof of:
Penyelidik di atas telah mengemukakan kepada CRC HKL sebelum penyelidikan beliau dimulakan, bukti:

☑ **Head of Department(s) Agreement**
Persetujuan Ketua Jabatan

☑ **Director of Hospital Kuala Lumpur's Agreement**
Persetujuan Pengarah Hospital Kuala Lumpur

☑ **MREC approval**
Kelulusan JEPP

Date & CRC stamp: 11/4/2025

Verified by:
Disemak oleh:

PUSAT PENYELIDIKAN KLINIKAL HOSPITAL KUALA LUMPUR
TINGKAT 3, BANGUNAN PENTADBIRAN & KEWANGAN
HOSPITAL KUALA LUMPUR
TEL 03 26155555 EXT. 6262

EMAIL: crc.hkl@moh.gov.my

AGREEMENT FOR UNDERTAKING RESEARCH AT HOSPITAL KUALA LUMPUR

Persetujuan Penggunaan Kemudahan Hospital Kuala Lumpur Untuk Menjalankan Penyelidikan

CRCHKL Research Registration No *No. pendaftaran penyelidikan CRCHKL*	CRCHKL-2025-04-079
Research Title *Tajuk penyelidikan*	FACTORS INFLUENCING ABSENTEEISM AMONG ASSISTANT MEDICAL OFFICERS IN HOSPITAL KUALA LUMPUR
NMRR Research ID *No. Penyelidikan NMRR*	NMRR ID-25-00428-BWL
Protocol ID (ISR only) *No Protokol (ISR sahaja)*	
Type of Research *Jenis penyelidikan*	IIR- Observational Study
Study Sponsor (*If Relevant*) *Penaja penyelidikan (sekiranya berkenaan)*	SELF SPONSORED
Principle Investigator's Name *Nama penyelidik utama*	MOHAMMAD RAZMANI BIN CHE RASHID
PI's Department (HKL only) *Jabatan penyelidik utama (HKL sahaja)*	
PI's Institution (*if non HKL*) *Institusi penyelidik utama (bukan HKL)*	UNIVERSITI UTARA MALAYSIA
PI Contact No *No. telefon penyelidik utama*	+6013-9053427
PI E-Mail *Email penyelidik utama*	mohdrazmani95@gmail.com
HKL PI at Site/Co-I/Coordinator Name *Penyelidik utama / bersama di HKL/ Penyelaras*	MASTURA BINTI MOHD MURAD
Department *Jabatan*	Clinical Research Center
Contact No *No. telefon*	011-11405202
Email *Emel*	mastura.murad@moh.gov.my
Good Clinical Practice (GCP) Certificate *Sijil Good Clinical Practice (GCP)*	NOT APPLICABLE
GCP Refresher *GCP Refresher*	
Research Site *Tempat penyelidikan*	HKL
HKL Requirement Prior to Data Collection **MREC Approval** *(Kelulusan JEPP)*	APPROVED (As attached)
MREC Approval Date *Tarikh Kelulusan JEPP*	8/4/2025
Site Consent (AK 02-02) *(Persetujuan Pengarah HKL)*	PENDING (To submit prior to data collection)
Registered by *Didaftar oleh*	PPP Mastura Binti Mohd Murad
Date *Tarikh*	9/4/2025

By signing the agreement: *Dengan menandatangani persetujuan ini:*	
☑ I declare the information in this form is truthful and accurate to the best of my knowledge and belief and I take full responsibility for this project at this site. *Saya mengaku maklumat di dalam borang ini adalah benar dan tepat sepanjang pengetahuan saya dan saya bertanggungjawab penuh untuk projek ini.*	
☑ I certify that I and all members of the research team have the appropriate qualifications, training, experience and facilities to conduct the research set out in the proposal attached and to deal with any emergencies and contingencies related to the research that may arise. *Saya mengaku bahawa saya dan semua ahli pasukan penyelidikan mempunyai kelayakan yang sesuai, latihan, pengalaman dan kemudahan untuk menjalankan penyelidikan yang dinyatakan dalam permohonan yang disertakan dan untuk menangani sebarang kecemasan yang mungkin timbul diluar jangkaan yang berkaitan dengan penyelidikan.*	
☑ I undertake to conduct this research project in accordance with the protocols and procedures as approved by the Medical Research Ethics Committee (MREC) and the ethical and research arrangements of the organisation(s) involved. *Saya berjanji untuk menjalankan projek penyelidikan ini mengikut protokol dan prosedur yang diluluskan oleh Jawatankuasa Etika Penyelidikan Perubatan (JEPP) dan etika penyelidikan dengan organisasi yang terlibat.*	
☑ I will adhere to the conditions of authorisation stipulated by the authorising authority at the site where I am the Principal Investigator including any monitoring/reporting requirements. I will discontinue the research if the authorising authority withdraws the authorisation at the site where I am the Principal Investigator. *Saya akan mematuhi syarat-syarat kelulusan yang ditetapkan oleh pihak berkuasa yang membenarkan di tempat di mana saya, selaku Penyelidik Utama termasuk apa-apa keperluan pemantauan / pelaporan. Saya tidak akan meneruskan penyelidikan jika pihak berkuasa yang memberi kuasa menarik balik kebenaran.*	
☑ I will inform the HKL departmental Research Coordinator, and CRC HKL in the event of study completion/closure. *Saya akan maklumkan pada koordinator penyelidikan jabatan HKL dan CRC HKL apabila penyelidikan saya telah tamat/ditutup.*	
☑ I declare that if my research requires a Research Agreement, I have read, understood and will adhere to it. *Saya mengakui bahawa sekiranya penyelidikan saya memerlukan Perjanjian Penyelidikan, saya telah membaca, memahami dan akan mematuhinya.*	
Name of Principal Investigator/ Principal Investigator at Site *Nama Penyelidik Utama/ Penyelidik Utama Setempat*	Mohammad Razmani Bin Che Rashid
Signature and Official Stamp *Tandatangan dan Cop Rasmi*	MOHD RAZMANI BIN CHE RASHID Pen. Peg. Perubatan U29 u5
Date *Tarikh*	9/4/2025

JAWATANKUASA ETIKA & PENYELIDIKAN PERUBATAN
(*Medical Research & Ethics Committee*)
KEMENTERIAN KESIHATAN MALAYSIA
d/a Kompleks Institut Kesihatan Negara
Blok A, No 1, Jalan Setia Murni U13/52,
Seksyen U13, Bandar Setia Alam,
40170 Shah Alam, Selangor.
Tel: 03-3362 8888/8205

Ref : 25-00428-BWL (2)
Date : 08-April-2025

MOHAMMAD RAZMANI BIN CHE RASHID
UNIVERSITI UTARA MALAYSIA

Dear Sir/ Madam,

ETHICS INITIAL APPROVAL: NMRR ID-25-00428-BWL (IIR)
FACTORS INFLUENCING ABSENTEEISM AMONG ASSISTANT MEDICAL OFFICERS IN HOSPITAL KUALA LUMPUR

This letter is made in reference to the above matter.

2. The Medical Research and Ethics Committee (MREC), Ministry of Health Malaysia (MOH) has provided ethical approval for this study. Please take note that all records and data are to be kept strictly **CONFIDENTIAL** and can only be used for the purpose of this study. All precautions are to be taken to maintain data confidentiality. **Permission from the District Health Officer / Hospital Administrator / Hospital Director and all relevant heads of departments/units where the study will be carried out must be obtained prior to the study**. You are required to follow and comply with their decision and all other relevant regulations.

3. The investigators and study sites involved in this study are:

HOSPITAL KUALA LUMPUR
Mohammad Razmani bin Che Rashid (Principal/ Coordinating Investigator)
Mastura binti Mohd Murad
Nurul Syazwani binti Ahmad Sabri

4. The following study documents have been received and reviewed with reference to the above study:

1. Study Protocol_Version 1.0, dated 01-January-2025
2. Patient Information Sheet (PIS) & Informed Consent Form (ICF)_English Version 1.0, dated 01-January-2025
3. Questionnaire_Version 1.0, dated 05-February-2025
4. Investigator's documents: Declaration of Conflict of Interest (COI), IA-HOD-IA, and CV:
   a) Mohammad Razmani bin Che Rashid (Principal/ Coordinating Investigator)
   b) Mastura binti Mohd Murad
   c) Nurul Syazwani binti Ahmad Sabri

5. Please note that ethical approval is valid until **07-April-2026**. The following are to be reported upon receiving ethical approval. Required forms can be obtained from the National Medical Research Registry (NMRR) website:

   i. **Continuing Review Form** has to be submitted to MREC within 2 months (60 days) prior to the expiry of ethical approval.
   ii. **Study Final Report** upon study completion to the MREC.
   iii. Ethical approval is required in the case of amendments/changes to the **study documents/ study sites/ study team**. MREC reserves the right to withdraw ethical approval if changes to study documents are not completely declared.

25-00428-BWL (2)

6. This study involves the following methods:

   i. **Online-based Questionnaire/ Survey**

7. Please take note that the **reference number** for this letter must be stated in all correspondence related to this study to facilitate the process.

Thank you.

Comments:

1. **Please ensure the approved Patient Information Sheet (PIS) & Informed Consent Form (ICF) version 1.0, dated 01-January-2025 is used in the link/ online form.**
2. **Identifiable information such as name, identification number / IC, home address, email address, phone number, medical record number (MRN) or registration number (RN) and etc. SHALL NOT be collected in the in the online questionnaire/ Google form.**
3. **Subjects should not be required to sign in to an account in order to fill in the questionnaire/ survey.**

Project Sites:
HOSPITAL KUALA LUMPUR

Decision by Medical Research & Ethics Committee:
(√) Approved
( ) Disapproved

Date of Approval: 08-April-2025

DR. NURAIN BINTI MOHD NOOR
Chairperson
Medical Research & Ethics Committee
Ministry of Health Malaysia
MMC No: 31576

WSNI/Approval2025/Mrecshare

QUESTIONNAIRE FORM

THE INFLUENCE OF INADEQUATE STAFFING AND HEALTH PROBLEM ON ABSENTEEISM AMONG ASSISTANT MEDICAL OFFICERS IN KUALA LUMPUR

This study aims to evaluates the relationship between inadequate staffing, personal health issues and absenteeism factors among Assistant Medical Officers at Hospital Kuala Lumpur. Your participation in completing the following questionnaire is entirely voluntary. All information provided will be kept confidential and used solely for academic purposes, and your identity will remain anonymous. Please provide the most accurate answers or opinions for each question

Please contact:

Mohd Razmani Bin Che Rashid (832433)

mohdrazmani95@gmail.com (013-9053427)

Informed Consent Form

I would like to invite you to participate in a research study that evaluates the relationship between inadequate staffing, personal health issues and absenteeism factors among Assistant Medical Officers at Hospital Kuala Lumpur. Participation requires you to answer the following questions in this questionnaire. There is no planned deception in this study.

Your Privacy: Your participation in this study and your responses will be kept confidential. Any reference to you will be made using a pseudonym, including any direct quotes from your responses. Documents that may personally identify you as a participant in this study will be kept confidential, and only the researcher will have access to them.

SECTION A: DEMOGRAPHIC OF RESPONDENT

Instructions to Respondents:

Please answer the following questions by marking the most appropriate option based on your situation. Your answers will be kept strictly confidential. Please tick (/) in the appropriate box or fill in the blank spaces where applicable /

Arahan kepada Responden:

Sila jawab soalan-soalan berikut dengan menandakan pilihan yang paling sesuai berdasarkan situasi anda. Jawapan anda akan dirahsiakan sepenuhnya. Sila tandakan (/) dalam kotak yang sesuai atau isi ruang kosong di mana yang berkenaan.

1. Gender / Jantina

	Male / Lelaki
	Female / Perempuan

2. Age / Umur

	20 – 29 years old / tahun
	30 – 39 years old / tahun
	40 – 49 years old / tahun
	50 years old and above / tahun dan ke atas

3. Education / Pendidikan

	Diploma / Diploma
	Bachelor Degree / Ijazah Sarjana Muda

	Master / Ijazah Sarjana
	PhD / Doktor Falsafah

4. Job Position Grade / Gred Jawatan

	U5
	U6
	U7
	U9
	U10 and Above / dan ke atas

5. Working Hour / Waktu Bekerja

	6-7 Hours / Jam
	8-9 Hours / Jam
	10-11 Hours / Jam
	12 Hours and Above / Jam dan ke atas

6. Working Experience / Pengalaman Kerja

	1-5 Year
	6-10 Years
	10 Years and Above

SECTION B: INADEQUATE STAFFING

In this section, please indicate the extent to which you agree or disagree with each of the following statements. You may indicate your answer by ticking (/) in your selected response, using the scale: (1) = Strongly Disagree; (2) = Disagree; (3) = Neutral; (4) = Agree; (5) = Strongly Agree. /

Dalam bahagian ini, sila nyatakan sejauh mana anda bersetuju atau tidak bersetuju dengan setiap pernyataan berikut. Anda boleh menyatakan jawapan anda dengan menandakan (/) pada respons yang dipilih, menggunakan skala berikut: (1) = Sangat Tidak Setuju, (2) = Tidak Setuju, (3) = Neutral, (4) = Setuju, (5) = Sangat Setuju

STATEMENT	1	2	3	4	5
There are often too few staff members to handle the workload demands. / *Terdapat kekurangan anggota staf untuk menangani beban kerja yang diperlukan*					
The number of assistive personnel (e.g., colleague) is often insufficient to support nursing care. / *Bilangan kakitangan sokongan (contohnya, rakan sekerja) sering kali tidak mencukupi untuk menyokong penjagaan pesakit*					
Unexpected patient admissions and discharges create challenges in providing care. / *Kemasukan dan pelepasan pesakit yang tidak dijangka mencipta cabaran dalam memberikan penjagaan*					
Deterioration of a patient's condition significantly impacts my ability to manage my workload. / *Kemerosotan keadaan pesakit memberi kesan besar terhadap keupayaan saya untuk menguruskan beban kerja*					
Communication problems with the department superior are frequently experienced. / *Kesukaran berkomunikasi dengan ketua jabatan sering berlaku*					

Supplies and equipment are often unavailable or not functioning properly when needed. / *Bekalan dan peralatan sering kali tidak tersedia atau tidak berfungsi dengan baik apabila diperlukan.*					
Inadequate hand-offs from previous shifts or other departments affect my ability to provide quality care. / *Penyerahan maklumat yang tidak mencukupi daripada syif sebelumnya atau jabatan lain menjejaskan keupayaan saya untuk memberikan penjagaan berkualiti*					
Colleagues often fail to communicate when planned nursing care activities are not completed. / *Rakan sekerja sering gagal berkomunikasi apabila aktiviti penjagaan yang dirancang tidak diselesaikan*					
A lack of cooperation or help from team members is often encountered. / *Kurangnya bantuan atau kerjasama daripada rakan sepasukan kerap berlaku*					
There are frequent communication problems within the team. / *Terdapat masalah komunikasi yang kerap dalam kalangan pasukan.*					

SECTION C: PERSONAL HEALTH ISSUE

In this section, please indicate the extent to which you agree or disagree with each of the following statements. You may indicate your answer by ticking (/) in your selected response, using the scale: (1) = Strongly Disagree; (2) = Disagree; (3) = Neutral; (4) = Agree; (5) = Strongly Agree. /

Dalam bahagian ini, sila nyatakan sejauh mana anda bersetuju atau tidak bersetuju dengan setiap pernyataan berikut. Anda boleh menyatakan jawapan anda dengan menandakan (/) pada respons yang dipilih, menggunakan skala berikut: (1) = Sangat Tidak Setuju, (2) = Tidak Setuju, (3) = Neutral, (4) = Setuju, (5) = Sangat Setuju

STATEMENT	1	2	3	4	5
I frequently experience headaches related to work demands / *Saya sering mengalami sakit kepala yang berkaitan dengan tuntutan kerja*					
I often feel fatigued due to my workload / *Saya sering berasa letih disebabkan oleh beban kerja saya.*					
I have experienced feelings of depression related to my work environment. / *Saya pernah mengalami perasaan murung yang berkaitan dengan persekitaran kerja saya.*					
I often feel irritable because of my work. / *Saya sering berasa mudah marah kerana pekerjaan saya.*					
I feel that work-related stress negatively affects my psychological health. / *Saya merasakan bahawa tekanan kerja memberi kesan negatif kepada kesihatan psikologi saya.*					
I believe that work-related stress has negatively impacted my cardiovascular health. / *Saya percaya bahawa tekanan kerja telah memberi kesan negatif terhadap kesihatan kardiovaskular saya.*					

I feel that my gastrointestinal health has been adversely affected by my work environment. / *Saya merasakan bahawa kesihatan saluran gastrousus saya telah terjejas oleh persekitaran kerja saya*					
I am satisfied with my current job. / *Saya berpuas hati dengan pekerjaan saya sekarang.*					
I find that my working hours negatively affect my social life./ *Saya mendapati bahawa waktu kerja saya memberi kesan negatif kepada kehidupan sosial saya.*					
I feel that my sleep quality has deteriorated due to work-related factors. / *Saya merasakan bahawa kualiti tidur saya telah merosot disebabkan oleh faktor yang berkaitan dengan kerja.*					

SECTION D: ABSENTEEISM

In this section, please indicate the extent to which you agree or disagree with each of the following statements. You may indicate your answer by ticking (/) in your selected response, using the scale: (1) = Strongly Disagree; (2) = Disagree; (3) = Neutral; (4) = Agree; (5) = Strongly Agree. /

Dalam bahagian ini, sila nyatakan sejauh mana anda bersetuju atau tidak bersetuju dengan setiap pernyataan berikut. Anda boleh menyatakan jawapan anda dengan menandakan (/) pada respons yang dipilih, menggunakan skala berikut: (1) = Sangat Tidak Setuju, (2) = Tidak Setuju, (3) = Neutral, (4) = Setuju, (5) = Sangat Setuju

STATEMENT	1	2	3	4	5
I perceive a lack of management support regarding absenteeism. / *Saya merasakan kekurangan sokongan pengurusan berkaitan ketidakhadiran*					
I perceive my workplace is often understaffed. / *Saya merasakan tempat kerja saya sering kekurangan kakitangan*					
I feel that the fear of disciplinary action affects my decision to attend work. / *Saya merasakan bahawa ketakutan terhadap tindakan disiplin mempengaruhi keputusan saya untuk hadir bekerja.*					
I feel a strong sense of responsibility toward my patients and coworkers when deciding whether to go to work. / *Saya merasakan tanggungjawab yang kuat terhadap pesakit dan rakan sekerja apabila membuat keputusan untuk pergi bekerja.*					
Most of the time, I feel physically and mentally capable of working. / *Kebanyakan masa, saya berasa berupaya secara fizikal dan mental untuk bekerja.*					

I struggle to find a replacement when I need to take time off from work. / *Saya menghadapi kesukaran mencari pengganti apabila saya perlu mengambil cuti bekerja.*					
I have been directed by management to come to work despite personal circumstances. / *Saya pernah diarahkan oleh pihak pengurusan untuk hadir bekerja walaupun menghadapi keadaan peribadi*					
I am sometimes unaware of potential contagions that I might spread to coworkers or patients. / *Saya kadang-kadang tidak menyedari kemungkinan jangkitan yang mungkin saya sebarkan kepada rakan sekerja atau pesakit.*					
I prefer not to use my time-off unless absolutely necessary. / *Saya lebih suka tidak menggunakan cuti saya melainkan benar-benar perlu.*					
I feel my attendance decisions are influenced by having no sick days left to use. / *Saya merasakan keputusan kehadiran saya dipengaruhi oleh ketiadaan baki cuti sakit untuk digunakan*					

Thank you for answering the questionnaire.