



**INFLUENCE OF PSYCHOSOCIAL SAFETY CLIMATE AND WORK  
ENGAGEMENT ON SAFETY WORKAROUND AMONG NURSES IN  
MALAYSIAN PUBLIC HOSPITALS**

**By**

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**Thesis Submitted to the School of Graduate Studies University Putra Malaysia, in  
Fulfilment of the Requirements for the Master of Science**

**June 2023**

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirement for the Degree of Master of Science

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It is imperative for the healthcare industry to reduce errors, enhance patient care, and boost workaround effectiveness. However, Failure of safety workaround prevents the achievement of these goals in hospitals by causing employee time wastage, delayed patient care, and low care quality. Safety workarounds are a lack of information, supplies, equipment, or labour that hinder caregivers from providing adequate healthcare services. To improve hospitals' performance, frontline employees are vital in identifying safety workaround and eliminating their underlying causes. Therefore, through the theoretical lens of the job demand-resource, conservation of resource, and social exchange theories, this study sought to assess the interrelationships among nurses' psychosocial safety and work engagement on safety workaround in Malaysian public hospitals. The quantitative method was adapted in this study, under which survey data was collected from 559 nurses working in public hospitals in the state of Perak, Malaysia. The participants were chosen based on two-stage cluster sampling. Partial Least Squares Structural Equation Modelling (PLS-SEM) analysis of the data revealed that nurses' work engagement significantly enhances their safety workaround, but psychosocial safety climate does not directly affect safety workaround. Nonetheless, psychosocial safety climate was found to impact safety workaround through the significant mediating role of work engagement. These findings extend the understanding of safety workaround among nurses, offering theoretical and practical implications to researchers and practitioners in the healthcare sector.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains

**PENGARUH IKLIM KESELAMATAN PSIKOSOSIAL DAN PENGLIBATAN  
KERJA TERHADAP PENYELESAIAN KESELAMATAN KERJA  
SEKELILING DALAM KALANGAN JURURAWAT DI HOSPITAL AWAM DI  
MALAYSIA**

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Industri penjagaan kesihatan harus menitikberatkan pengurangan ralat supaya penjagaan pesakit dan keberkesanan penyelesaian dapat ditingkatkan. Walau bagaimanapun, kegagalan penyelesaian keselamatan kerja sekeliling menghalang pencapaian matlamat ini di hospital dengan menyebabkan pembaziran masa pekerja, kelewatan penjagaan pesakit dan kualiti penjagaan yang rendah. Penyelesaian Keselamatan Kerja Sekeliling dikenali sebagai kekurangan maklumat, bekalan, peralatan atau buruh yang menghalang penjaga daripada menyediakan perkhidmatan penjagaan kesihatan yang mencukupi. Untuk meningkatkan prestasi hospital, pekerja barisan hadapan adalah penting dalam mengenal pasti penyelesaian keselamatan kerja sekeliling dan menghapuskan punca asas mereka. Oleh itu, melalui teori permintaan-sumber kerja, pemuliharaan sumber, dan teori pertukaran sosial, kajian ini berusaha untuk menilai perkaitan antara keselamatan psikososial jururawat dan penglibatan kerja mengenai penyelesaian keselamatan kerja sekeliling di hospital awam Malaysia. Kaedah kuantitatif telah diadaptasi dalam kajian ini, di mana data tinjauan dikumpul daripada 559 jururawat yang bekerja di hospital awam di negeri Perak, Malaysia. Para peserta dipilih berdasarkan persampelan kelompok dua peringkat. Analisis Data Pemodelan Persamaan Struktur Separa Kuasa Dua (PLS-SEM) mendedahkan bahawa penglibatan kerja jururawat dengan ketara meningkatkan penyelesaian keselamatan kerja sekeliling mereka tetapi iklim keselamatan psikososial tidak mempunyai kesan langsung ke atas penyelesaian keselamatan. Walau bagaimanapun, iklim keselamatan psikososial didapati mempunyai kesan ke atas penyelesaian keselamatan kerja sekeliling melalui peranan pengantara yang penting dalam penglibatan kerja. Penemuan ini meluaskan pemahaman tentang penyelesaian keselamatan kerja sekeliling dalam kalangan jururawat, dengan itu menawarkan implikasi teori dan praktikal kepada penyelidik dan pengamal dalam sektor penjagaan kesihatan.

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This thesis was submitted to the Senate of University Putra Malaysia and has been accepted as fulfillment of the requirement for the degree of Master of Science. The members of the Supervisory Committee were as follows:

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## LIST OF ABBREVIATIONS

|     |                             |
|-----|-----------------------------|
| PSC | Psychosocial Safety Climate |
| WE  | Work Engagement             |
| SW  | Safety Workaround           |



## CHAPTER 1

### INTRODUCTION

This chapter begins by explaining the research background and problem statement. Then, it outlines the study's objectives, significance, scope, limitations, and assumptions. Finally, the definitions of key terms and research hypotheses are provided.

#### 1.0 Background of the Study

The healthcare industry's spending record is not translating into satisfactory performance, and concerns have been raised about the high prevalence of clinical errors (Graber, 2013). Clinical errors are widespread in healthcare organizations worldwide yet not fully disclosed in many countries. These errors signify a problem that necessitates further exploration, and a system that allows for reporting such errors would enable healthcare organizations to identify contributing factors, prevent future occurrences, and gain knowledge from their mistakes. Nevertheless, the absence of error reporting obstructs the development of prevention strategies.

The first-ever Patient Safety Day was observed on September 17, 2019, with the theme "Patient Safety: A Global Health Priority," emphasizing a blame-free environment and honesty as the minimal requirement for implementing a safety culture. This event served as a reminder to all healthcare workers about the significance of patient safety. Each day, numerous patients are put in an impairment situation due to hazardous care, leading to adverse outcomes resulting from a system designed to aid their recovery (Nadarajan et al., 2020). The World Health Organization (WHO) estimates that 10% of patients are affected while receiving hospital treatment, one in 300 is expected to be a victim of avoidable medical mishaps leading to patients' death, and approximately 15% of hospital expenses are incurred by treating patient safety violations (Donaldson & Neelam, 2020). It is reported that the top 10 causes of mortality and disability worldwide. Specifically, the National Academies of Sciences, Engineering, and Medicine (2019) reported that around 134 million adverse events occur every year in low- and middle-income countries due to unsafe hospital treatment, leading to 2.6 million deaths annually.

Medical malpractice refers to errors or misconduct by physicians. As a result, patients and third parties suffer injury or damage. To date, medical malpractice claims are on the rise worldwide (Islam, 2019). Although statistics are unavailable, a similar situation is observed in Malaysia (Hambali & Khodapanahandeh, 2014). This could be due to out-of-court settlements, patients accepting accidents as fate, lack of awareness of their rights, or inability to afford litigation, notably since Malaysia lacks a fast and cost-effective justice system for patient safety negligence.

Staff nurses are the backbone of Malaysian primary healthcare services, performing crucial roles in managing patient care. Malaysia's healthcare sector aims to achieve a nurse-patient population ratio of 1:200 by 2020, requiring 174,000 Registered Nurses (RNs). However, retaining nurses is challenging, as the number of nurses was only

106,373 in 2018, according to the Malaysian Human Resources for Health Country Profiles (MOH, 2020).

Despite the increasing need for health care, the number of registered nurses in primary health care has not increased accordingly (Ministry of Health, 2020). This imbalance is associated with a decline in the quality of care and patient safety, which harms the health of the professional groups. The syndrome among nurses in primary care contributes to the deterioration of the quality of care and patient safety, which may pose additional challenges to quality nursing practice.

Safety workarounds have ethical implications in at least three ways. First, they may reflect efforts to provide better care or allocate resources more equitably. Second, when a safety workaround is concealed, it may indicate an ethical problem, even if the intention is to do the right thing. Third, nurses may comply with policies they perceive to be unjust (Berlinger, 2017). Despite the importance of this concept, there is a lack of research on safety workarounds among nurses (Bianci & Ghiorotto, 2022).

### **1.1 Problem Statement**

Nurses are crucial employees within healthcare organizations as their performance plays a vital role in delivering quality healthcare to patients; therefore, it is essential to study nursing (Othman et al., 2014). Awuviry-Newton (2015) identified three types of nurse-patient relationships: favorable, unfavorable, and over-involved. Positive relationships between nurses and patients have improved patients' adherence to treatment, recovery rates, satisfaction, and feelings of safety and protection. According to Lotfi et al. (2019), positive nurse-patient relationships can shorten hospital stays and improve both parties' satisfaction and quality of life. Conversely, negative nurse-patient associations can have harmful effects, including prolonged hospital stays, worsened physical and mental health, and difficulties in adjusting to illness. The uniqueness of the nursing profession contributes to the development of knowledge, experience, age, education, economics, position, and a unique gender role (Loft et al., 2020). Nurses are the backbone of any health organization and play a critical role in achieving the goals of national health services. Nurses are responsible for caring for injured, sick, and disabled patients. They not only treat individual patients but also care for several patients at the same time (Potter et al., 2021).

According to Seaman et al. (2015), workarounds in healthcare settings have traditionally been viewed as deviations from best practices that could potentially harm patients and result in poor outcomes. Safety workarounds are often made due to the pressure to follow the rules or fulfill other work demands; therefore, they can have negative consequences, such as clinical errors, ultimately leading to patient harm or even death (Rodziewicz et al., 2023). Safety workarounds are often used to address competing duties, such as the need to balance efficiency and thoroughness, compensate for flaws in the system, and ensure equal treatment of all patients despite structural inequalities in healthcare access.

Psychosocial safety climate (hereafter PSC) is essential in promoting employee well-being and reducing job-related stress, as it reflects employers' ability to prioritize their employees' psychological health and safety while balancing the organization's productivity goals (Dollard, 2018; 2012). Dollard et al. (2019) defined PSC as a common understanding of the organizational strategies, processes, and protocols that safeguard employees' psychological well-being and safety. When the workplace fosters psychological safety, employees can establish unambiguous and secure boundaries, which enhances the likelihood of open communication, discussion, and learning from experiences. Consequently, safety errors are reduced (Grailey et al., 2021). Moreover, supposedly, nurses feel that their leaders prioritize safety and security. In that case, they are more inclined to report errors and take measures to address safety concerns (Halbesleben et al., 2013). A positive PSC can thus reduce workarounds, resulting in fewer injuries to patients and nurses (Garcia et al., 2019). Nevertheless, the link between PSC and safety workarounds has scarcely received empirical attention.

Many organizations, such as the construction industry, including those in the healthcare industry, have made it a strategic goal to achieve high employee engagement (Rai & Maheshwari, 2020). Engaged nurses are dedicated to their organization, content with their jobs, and willing to go above and beyond to attain organizational objectives (Eldor, 2016). The relationship between an organization and its nurses is vital for motivating the latter and boosting corporate profitability (Osborne & Hammoud, 2017). Berlinger (2017) explained that engaged nurses who participate in developing, applying, and assessing safety interventions can enhance patient and worker outcomes. This suggests a link between work engagement and safety workarounds. However, there is limited evidence to support this relationship.

A preliminary literature search reveals that limited research has attempted to explore the Malaysian perspective of safety workaround. Therefore, this study's findings offer empirical evidence in this context by examining the nature of safety workaround in healthcare organizations in Malaysia. In doing so, this research further adds value to the literature by validating the constructs and measures used in an Asian setting.

Previous studies have also shown a link between PSC and nurses' engagement (Ang, Ramayah & Doris, 2018; Lingard et al., 2014). By prioritizing nurses' physical and psychological health, organizations can provide the necessary resources to improve their jobs and careers, leading to more stable and secure working environments (Sovold et al., 2021). Emphasizing nurses' engagement can motivate, develop, and cultivate the existing workforce, resulting in greater job satisfaction and a higher likelihood of providing high-quality care (Lee & Ok, 2015a, 2015b). It is thus plausible that PSC reduces safety workarounds by building nurses' engagement in their work. Nevertheless, there is a lack of empirical research examining the mediating role of work engagement in the effect of PSC on safety workarounds (Mansour & Tremblay, 2018).

Increasing engagement activities can give nurses more control over their work situations and help limit the number of accidents and injuries (Hoffman et al., 2017). However, adverse effects can also affect both healthcare professionals and hospitals, such as increased absenteeism and decreased patient safety due to clinical errors (Monsalve-

Reyes et al., 2018). The heavier workload and reduced resources in healthcare organizations can contribute to employee burnout (Mansour & Tremblay, 2018). Nurses' engagement is linked to their safety workaround. Nonetheless, interlinkages between work engagement and safety workaround have not been extensively studied.

Nursing staff must perform their work in a way that keeps the environment safe, protected, and preserved. Contemporary health management should include safety measures and the resulting environmental concerns. The contribution of nurses is essential in this regard. In addition, nurses should promote understanding of climate change-related health issues and assess the resulting health risks.

In addition, nurses need access to knowledge resources on wastage in health organizations. Sustainability in healthcare organizations can be increased through social relationships between supervisors, subordinates, and colleagues. This could be due to social desirability (nurses must be recognized as sustainable). Consequently, social interaction and organizational support could promote an understanding of their sustainability behaviour in hospitals and healthcare organizations. Health and nursing staff must be familiar with health care's impact on the environment, climate change, and resource scarcity on overall health.

Theoretically, according to SET, workers and managers or supervisors create positive relationships in the workplace to generate mutual understanding, resulting in a work environment that benefits both workers and their employers. In general, nurses feel supported and encouraged under perfect working conditions; consequently, they are more likely to contribute to their company by putting in extra effort in the form of quality work and patient care. Hence, there is a lack of studies confirming the current study's relationship prospects.

Based on the research gaps identified, this study aims to build a thorough understanding of the PSC concept, work engagement, and safety workaround in the context of nurses in public hospitals in Perak, Malaysia. This is significant as the practical gap highlights that most research on these constructs has been performed in Western contexts, highlighting the need to examine these concepts within different cultural and contextual settings (Mansour & Tremblay, 2018).

## **1.2 Research Questions**

After an extensive literature review, this study sought to answer the following research questions:

- i. Does PSC affect work engagement among nurses?
- ii. Does work engagement affect safety workaround among nurses?
- iii. Does PSC affect safety workaround among nurses?



- iv. Does work engagement mediate the effect of PSC on safety workaround among nurses?

### **1.3 Research Objectives**

This study investigated the direct and indirect interrelationships among PSC, safety workaround, and work engagement among nurses in Malaysian public hospitals. The specific research objectives are as follows:

- i. To determine the effect of PSC on work engagement among nurses.
- ii. To investigate the effect of work engagement on safety workaround among nurses.
- iii. To identify the effect of PSC on safety workaround among nurses.
- iv. To test if work engagement mediates the effect of PSC on safety workaround among nurses.

### **1.4 Significance of Research**

By achieving the research objectives described above, the findings of this study carry essential theoretical and practical significance for the nursing field, as explained below.

Theoretically, this study can serve as a reference point for future research on the determinants and prevalence of safety workaround, contributing to the theoretical discussion and practical application of this concept involving JD-R, SET, and COR theories. Additionally, the study offers empirical evidence on work engagement as a mediator in the relationship between PSC and safety workaround.

Practically, this study has implications in identifying the problem of safety workaround and its determinants. Through this recognition, appropriate interventions can be implemented to address psychosocial safety climate work engagement among nurses, helping them maintain their empathic, compassionate, and professional attitude towards their work and ultimately providing optimal patient care. Additionally, this study's findings can inform nursing students' training on effective prevention, intervention, and coping strategies related to safety workaround. This can reduce the prevalence of safety workaround in the future and ultimately contribute to improved patient safety and care.

### **1.5 Scope and Limitations of the study**

This study's findings highly depended on the respondents' honesty in providing the desired information as questionnaires were carried out. The study scope was limited to selected hospitals in Perak, Malaysia, as no full consent was obtained from other non-

participating hospitals. The studied population encompassed male and female full-time nurses selected through 2-stage cluster sampling. Thus, the results only provide limited insight into the investigated issue in the study location and not overall Malaysia.

## 1.6 Definitions of Terms

**Psychosocial Safety Climate (PSC)** concerns employees' shared perceptions about the organization's practices, policies, and processes for protecting workers' psychological health and safety (Dollard, 2010). This study refers to employees' collective perception of organizational practices, policies, and procedures. This perception is reflected in management commitment, organizational communication, leadership prioritization, and employee participation in promoting psychosocial health and safety.

**Safety workaround** indicates how healthcare workers face the complexities of providing service within a structure that demands ever more standardization, wherein they exhibit inconsistent and idiosyncratic work styles to enhance their performance at the cost of patient safety. According to Mansour and Tremblay (2019), a workaround performs an activity when the system/process is not working well. While a workaround provides a temporary solution to the immediate problem, it is also a symptom of a system that may need improvement. Workarounds can be positive (they increase security). However, they also create new opportunities for error and reduce the system's reliability. Some factors favor workarounds. For example, a high workload, an adverse organizational climate characterized by poor leadership, few opportunities for professional development, lack of staff participation in decision-making, a perceived lack of staff management and support, and incompatibilities between established strategies and actual needs.

**Work engagement** is a multidimensional construct formed by a positive job-related state of mind. Kahn (1990) pioneered the concept of staff engagement by proposing that engaged employees are physically, cognitively, and emotionally involved in their work role and experience a sense of meaning (reward for investing in role performance), psychological safety (a sense of confidence and security at work) and availability (a sense of having the physical and psychological resources needed to do the job) (Knight et al., 2017). This state is typically described as one of vigor, dedication, and absorption, which brings satisfaction to the individual in this study.

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