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**THE INFLUENCE OF SAFETY CLIMATE ON SAFETY PERFORMANCE
IN SERDANG HOSPITAL**

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Thesis Submitted to
Othman Yeop Abdullah Graduate School of Business,
Universiti Utara Malaysia,
In fulfillment of the Requirement for the Master of Sciences
(Occupational Safety and Health Management)

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ABSTRACT

This aim of the study is to determine the influence of safety climate on safety performance of the healthcare workers in Serdang Hospital. The health services will always be exposed to the risk of accidents or incidents in the workplace. However, safety climate is something fairly new to the healthcare industry. Furthermore, the hospital staff might have different perceptions on safety performance, safety climate and patient safety in response to the type of employer, work environment and regulations. The six dimensions of safety climate in this study are management safety practices, supervisory safety practices, safety attitude, safety training, job safety and co-workers safety practice. To achieve the objectives of the study, a total 150 sets of questionnaires was distributed to the hospital staff concern randomly. Quantitative data was analysed using SPSS software. It includes Descriptive Statistical Analysis, Reliability Test and Pearson Correlation Test. In addition, Multiple regression test was used to test the hypotheses. Meanwhile, all safety climate dimensions have significant relationship with safety performance. Finally, the implication of this study and direction for future research was discussed.

Keywords: Safety Climate, Safety Performance, Safety Compliance, Safety Participation

ABSTRAK

Tujuan kajian ini adalah untuk menentukan pengaruh iklim keselamatan terhadap prestasi keselamatan pekerja kesihatan di Hospital Serdang. Perkhidmatan kesihatan akan sentiasa terdedah kepada risiko kemalangan atau insiden di tempat kerja. Walau bagaimanapun, iklim keselamatan adalah sesuatu yang baru untuk industri penjagaan kesihatan. Selain itu, kakitangan hospital mungkin mempunyai persepsi yang berbeza tentang prestasi keselamatan, iklim keselamatan dan keselamatan pesakit sebagai tindak balas kepada jenis majikan, persekitaran kerja dan peraturan. Enam dimensi iklim keselamatan dalam kajian ini adalah amalan keselamatan pengurusan, amalan keselamatan penyeliaan, sikap keselamatan, latihan keselamatan, keselamatan kerja dan amalan keselamatan bersama pekerja lain. Untuk mencapai matlamat kajian ini, seramai 150 set soal selidik diedarkan kepada kakitangan hospital secara rawak. Data kuantitatif dianalisis menggunakan perisian SPSS. Ia termasuk Analisis Statistik Deskriptif, Ujian Kebolehpercayaan dan Ujian Korelasi Pearson. Di samping itu, ujian Regresi berganda digunakan untuk menguji hipotesis. Sementara itu, semua dimensi iklim keselamatan mempunyai hubungan yang signifikan dengan prestasi keselamatan. Akhirnya, implikasi kajian dan hala tuju kajian masa depan ini dibincangkan.

Kata Kunci: Iklim Keselamatan, Prestasi Keselamatan, Pematuhan Keselamatan, Penyertaan Keselamatan

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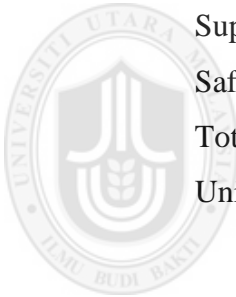
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LIST OF ABBREVIATIONS

CWSP	Co-Workers Safety Performance
DOSH	Department Occupational Safety and Health
JSafety	Job Safety
LTI	Lost Time Injuries
OSHA	Occupational Safety and Health Act 1994
PPE	Personal Protective Equipment
MSP	Management Safety Performance
SKVE	South Kajang Valley Expressway
SEM	Structural Equation Modelling
SOCSSO	Social Security Organisation Malaysia
SAAtt	Safety Attitude
SP	Safety Performance
SSP	Supervisory Safety Performance
STra	Safety Training
THIS	Total Hospital Information System
UPM	Universiti Putra Malaysia



Universiti Utara Malaysia

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CHAPTER 1

INTRODUCTION

1.1 Background of The Study

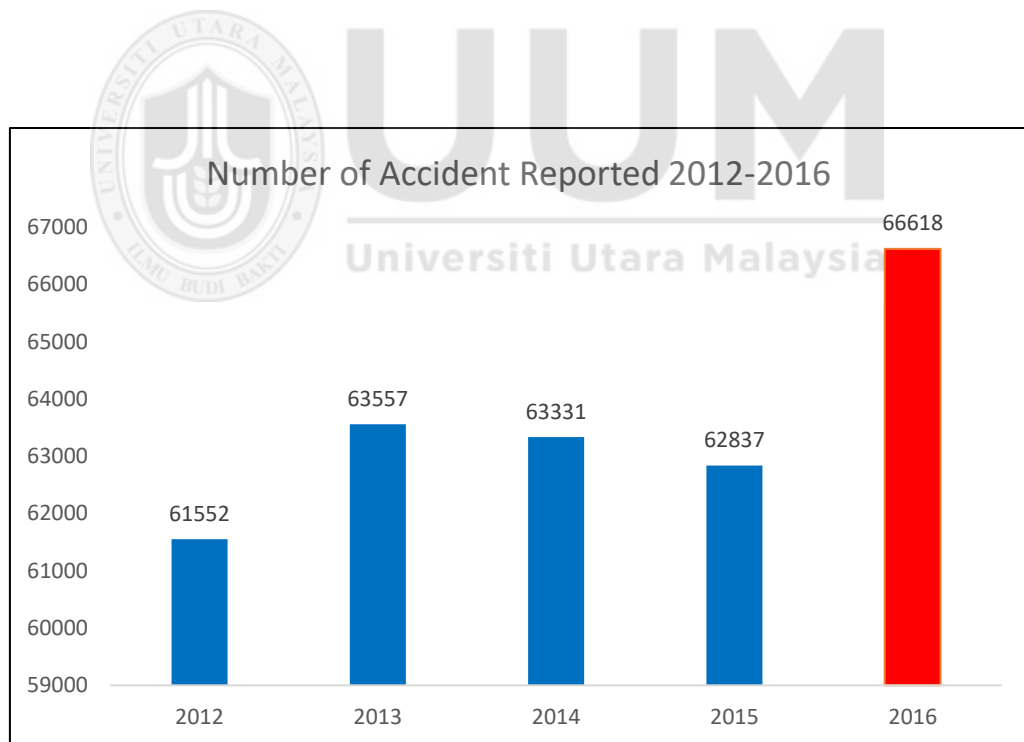
The number of occupational accidents and diseases in healthcare sector are infrequently exposed to news comparative to other sectors such as construction or manufacturing industries. Although the rate of death or injury due to occupational accidents not as high as the rate of loss of life caused by road accidents, but this should not be taken lightly as they involve human capital is a contributor to economic development and the administrative machinery of the state.

Unfortunately, most of the accidents that occur repeatedly as if precautions are not affected because we do not study and learn from the weaknesses that exist. To make it worse when there are some people to be indifferent to the issue of job safety and considers it an accident of fate or destiny that was going to happen and cannot be avoided.

Typically, occupational accidents occur due to several factors such as lack of knowledge, inadequate training, supervision and enforcement of irregular unmanageable in implementing laws and regulations. Human error usually leads to neglect, negligence, reckless conduct and less supervision and control. All these factors lead to poor performance and increased accident rate (Tharaldsen, Mearns, & Knudsen, 2010). Thus, many organisations have difficulty in overcome issues related to occupational safety and health because human nature is likely to engage in behaviours that lead to occupational accidents.

According to the annual report of the SOCSO for 2016 as shown in Figure 1, can be seen clearly that an increase in accidents each year with an average an increase of 3.2 %. In fact, the annual report for 2016 by the DOSH also shows that the rate of occupational related accidents increased annually in industrial accidents and commuting accident (Figure 2 and Figure 3).

Today, human capitalization and sustainability human resources has been viewed as the backbone of the nation in economy growth. In sustaining economy, various aspects occupational safety and health have been considered and be given priority to ensure the quality of human capital is always at a level of excellence in occupational health and safety.



Source: Social Security Organisation (SOCSO), Annual Report 2017

Figure 1
Number of Accident Reported 2012 – 2016

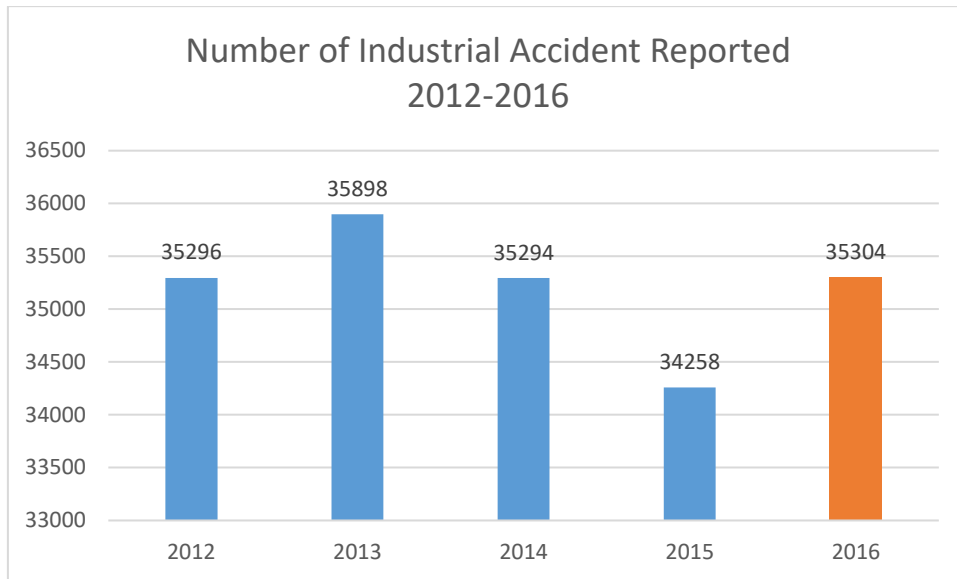


Figure 2
Number of Industrial Accidents 2012 – 2016

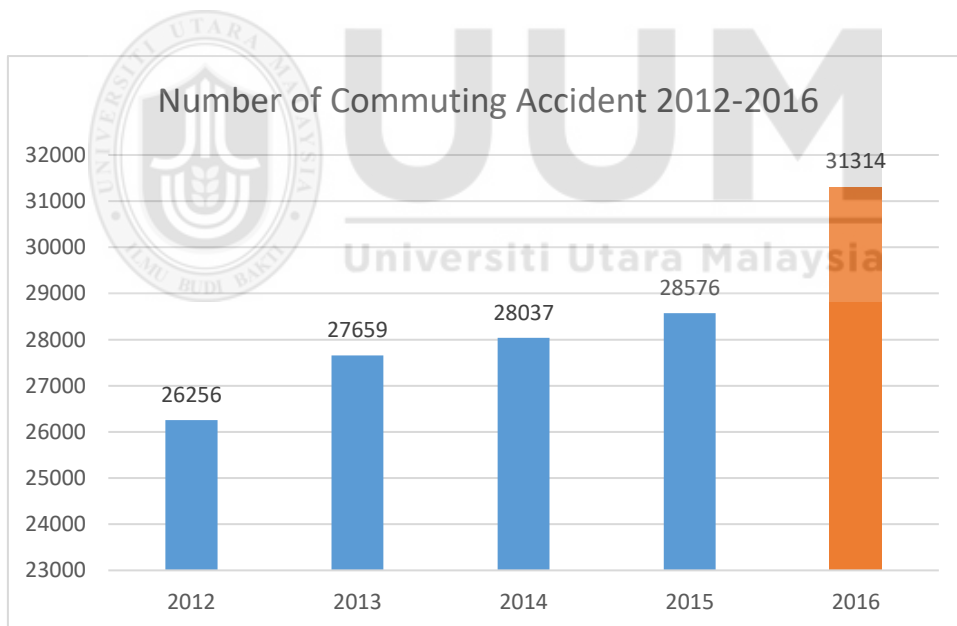


Figure 3
Number of Commuting Accidents 2012 – 2016

Occupational safety and health at work is one aspect given priority, thorough attention and emphasis on human capital development, particularly in high-risk work activities involving the use various types of machinery, equipment, chemicals

and others. Serdang Hospital is also not exempted from these requirements. Various forms of approaches have been taken and used for the prevention of accidents and injuries. All approach is simply and solely geared toward the same goal of ensuring workplace safety performance is always at its best.

As an institution of public hospital that runs health services, Serdang Hospital is located in District of Sepang, Selangor Darul Ehsan. The location is adjacent to South Kajang Valley Expressway (SKVE) in the east and the Medical Faculty of the Universiti Putra Malaysia in the west. Construction of the hospital is to provide medical services to approximately 570,000 people in Serdang, Putrajaya, Kajang and Bangi.

Serdang Hospital is operated by Malaysian government with concept of Integrated Total Hospital Information System (THIS). In addition, it is a referral hospital with 620 beds equipped with the latest amenities and it renders highest level services of ' Specialist Unit Secondary and Tertiary Levels of Care '. The hospital other than a medical service and treatment in accordance with the current requirements for internal and external patients, it is also a teaching hospital for the medical students of University Putra Malaysia (UPM)

Therefore, health services of course, will always be exposed to the risk of accidents or incidents in the workplace. Most of the wards or laboratory located at the hospital have the potential to cause injury to the user if it is not handled properly, did not follow procedures or do not comply with regulations has been set.

1.2 Problem Statement

Although many organizations have been working to improve safety at work with constraint financial resources, healthcare workers safety performance is still at an unsatisfactory level. This situation shows that some are not so effective approach in solving problems, particularly related to the safety behavior and safety management. Rather, perception studies can provide some solutions to these problems and represents the first step to understand and describe the behavior and management factors (Baas, 2002). Due to the simple observation of safety performance, the ineffectiveness of certain approaches and increasing medical costs and insurance as a result of work-related injuries, the researchers have tried for managing occupational safety and health through psychological perspective.

Similarly, the improvement and innovation of the equipment used in the work is still not sufficient to improve safety performance because the organizational culture and the human factor play also a very critical role. In this case, Zhou, Fang and Wang (2008) explain that the safety climate has attracted more attention in the development of safety.

According to Clarke (2006) in his study of various industrial, safety climate was positively related to achievement of safety (low accident rate). Thus, safety climate is one important tool in evaluating safety programs and the safety performance of the organization.

As a reflection of the increase in injuries and occupational diseases that are significant to the individual, organization and society, researchers have been taking seriously steps to improve the safety performance of the work (Christian, Bradley, Wallace, & Burke, 2009). In fact, the safety performance is also considered as a

direct predictor of occupational accidents and injuries (Neal & Griffin, 2006). Although the prevention of accidents traditionally only focused on increasing safety in the workplace through regulation of industry and technology, the latest research shows that organizational factors such as safety climate also affect the safety performance and results of safety (Christian et al., 2009).

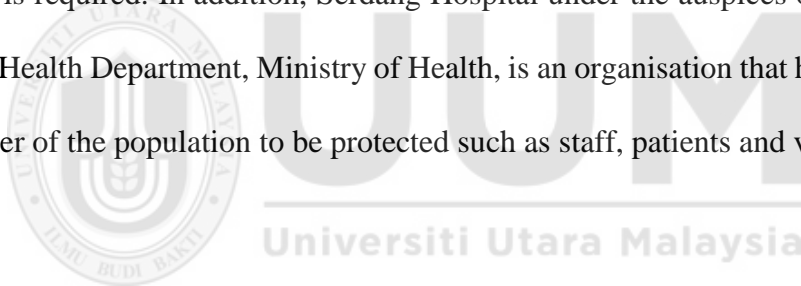
Thus, this study extends literature on safety performance by focusing on several safety climate dimensions that affect safety performance of safety compliance and safety participation.

Although issues related to occupational safety at the hospital is rarely heard, the issue of safety performance in healthcare facilities as Serdang Hospital remains the focus. In hospital, regulation and organizational safety policy is an important matter that consistently help reduce the accident rate to a level that can be accepted. However, to maintain and improve safety performance continuously, safe and healthy work practices in the employment process should be practiced and cultivated at any time.

In addition to the behavior and unsafe work practices, there are some other factors that may be one of the causes of the accident. According to Mullen (2004), most of the accidents that occur in the workplace is due to unsafe work practices rather than not safe working conditions. While Griffin and Neal (2000) in their study states that the behavior of individual safety in the workplace can be influenced by factors related organization or management practice. Many researchers have tried to study the safe behavior by identifying factors that naturally exist and influence by the organization. Hence, safety climate that reflects the real state of safety within an

organization are natural factors that the organization has attracted the attention of the researchers.

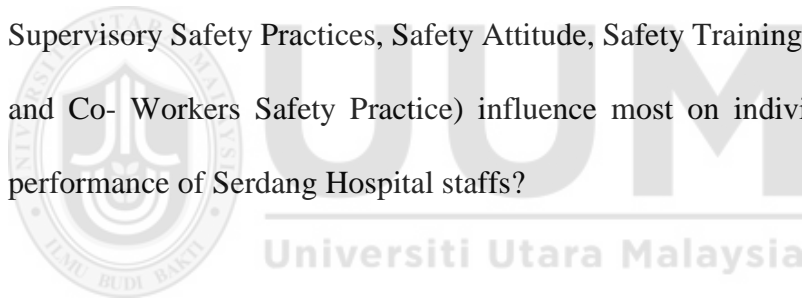
Safety climate has been widely used to predict the safety performance of organizations in many different industries such as manufacturing (Brown & Holmes, 1986), chemical processing (Vinodkumar & Bhasi, 2009), construction (Siu, Phillips, & Leung, 2004), and many others. However, safety climate is something fairly new to the healthcare industry. Furthermore, the hospital staff might have different perceptions of job safety and patient safety in response to the type of employer, work environment and regulations. Therefore, the model to explain and predict the relationship between safety climate and safety performance in hospital setup is required. In addition, Serdang Hospital under the auspices of the Selangor State Health Department, Ministry of Health, is an organisation that has a very large number of the population to be protected such as staff, patients and visitors.



1.3 Research Questions

This study aims to increase the knowledge in matters related to the safety climate by measuring the level of individual safety performance in Serdang Hospital and identify factors related to safety climate and influence on the level of safety performance. Thus, there are several questions that can be highlighted:

- i) What are the relationships between dimension of safety climate (Management Safety Practices, Supervisory Safety Practices, Safety Attitude, Safety Training, Job Safety and Co- Workers Safety Practice) and individual safety performance of Serdang Hospital staffs?
- ii) Which safety climate dimension (Management Safety Practices, Supervisory Safety Practices, Safety Attitude, Safety Training, Job Safety and Co- Workers Safety Practice) influence most on individual safety performance of Serdang Hospital staffs?



1.4 Research Objectives

Apart from a few research questions that need to be explained above, this study also aims to achieve the following objectives:

- i. To determine the relationship between safety climate dimension (management safety practices, supervisory safety practices, safety attitude, safety training, job safety and co- workers safety practice) on individual safety performance of Serdang Hospital staffs.
- ii. Identify the influence of safety climatic factors of i.e. management safety practices, supervisory safety practices, safety attitude, safety training, job safety and co- workers safety practice on individual safety performance of Serdang Hospital staffs.

1.5 Scope of the Study

This study focuses on two main variables i.e. safety climate and safety performance. The safety climate is being studied based on six dimensions i.e. management safety practices, supervisory safety practices, safety attitude, safety training, job safety and co- workers safety practice. Safety performance is being studied based on two dimensions i.e. safety compliance and safety participation. The respondents of this study were employee of Serdang Hospital.

1.6 Limitations of the Study

The limitation of this study involved small sample size compare to the population of healthcare staffs in Malaysia. The number of staffs in Serdang Hospital is more than 2154 and from very different category of education and job description. They work on patient's health directly and indirectly. Those who work directly are called clinician and those who work indirectly are clinical support personnel. Doctors and nurses are directly involved in patient care while diagnostic staffs are involved indirectly as the test specimen for assisting in diagnosis. Consequently, it difficult to analyze only one category or group of personnel working in a hospital as it involves wide variety of category of professions.

1.7 Significance of the Study

This study was conducted to identify and evaluate the factors that affect the individual safety performance in Serdang Hospital in implementing preventive measures through enhancing safety climate to reduce the risk of accidents while patient care activities being conducted. In fact, this study can also apply safety climate in the workplace and can indirectly increase staff awareness on occupational safety and health.

1.8 Organization of the Thesis

This thesis consists of five chapters, which strives to achieve a consequential and consistent of research stepladder, the thesis starts through chapter one, which present a background of the study, problem statement, research questions, objectives, and scope consequently as well as theoretical and practical significance of the research, study limitation, and thesis layout. Chapter two includes the critical and comprehensive literature review regarding research variables, underpinning theories is also elaborated as well. Chapter three explain the research methodology, it includes research framework, develop hypothesis, study design, variables operational definition and instrumentation, data collection, and sampling. While chapter four debates the study analysis and explore results of the research. The last chapter five, shows the research findings, future suggestion, and concluding remark.

1.9 Chapter Summary

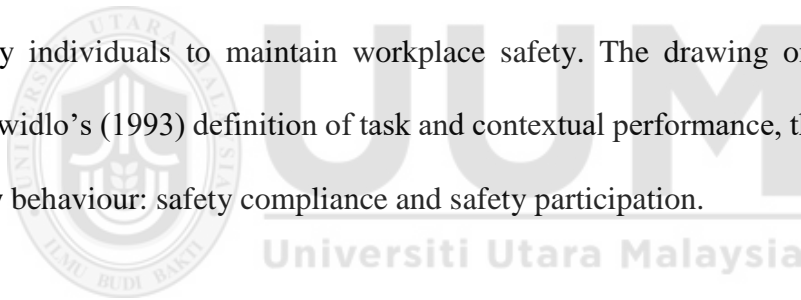
The increase cost of work -related accident had driven organisation to develop safety programs that enable the employees' to be protected at the same time complying with OSHA 1994. The safety management system is rapidly changing to meet the requirement of the workforce and the environment the workers are exposed. The healthcare industry is one of the least industries that being investigated on Occupational Safety and Health compare to other industries such as construction, manufacturing industries and other high-risk industries. The safety performance and safety climate in of healthcare industries need to explore and reveal the hidden risk involves healthcare workers. The influence of safety climate on safety performance should studied and necessary steps taken to prevent accident occurring in the healthcare industry.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter will look into the literature of the area of study which will be pertaining to safety performance and safety climate. The safety performance involves safety compliance and safety participation. The safety climate involves the management safety practices, supervisory safety practices, safety attitude, safety training, job safety and co-workers safety practice. The safety performance can be divided into area of safety compliance and safety participation which consist of antecedent. The term safety compliance is used to describe the core activities that need to be carried out by individuals to maintain workplace safety. The drawing on Borman and Motowidlo's (1993) definition of task and contextual performance, the two types of safety behaviour: safety compliance and safety participation.



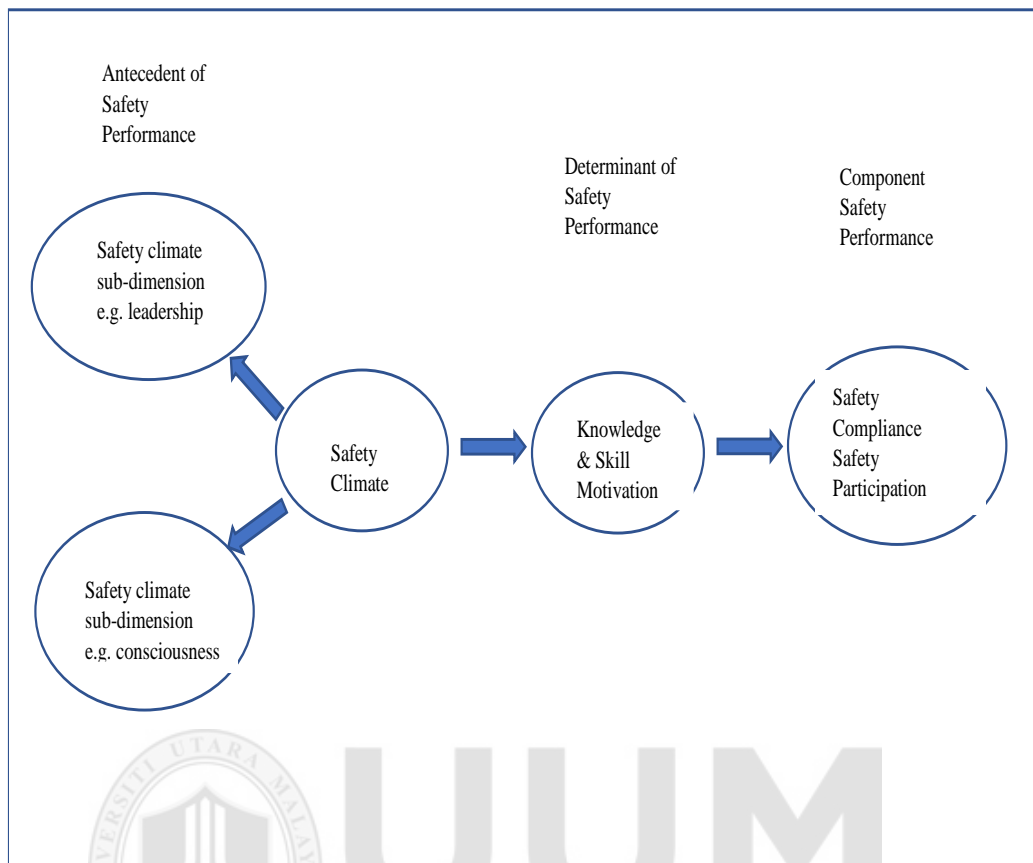


Figure 4
The drawing on Borman and Motowidlo's task and contextual performance

The components of performance represent the behaviours that individuals perform at work. These behaviors include adhering to standard work procedures and wearing personal protective equipment. The term safety participation is used to describe behaviours that do not directly contribute to an individual's personal safety, but which do help to develop an environment that supports safety. These behaviours include activities such as participating in voluntary safety activities, helping coworkers with safety-related issues, and attending safety meetings.

2.2 Safety Performance

The safety performance needs to be measure correctly in order to predict the organisational safety climate (Hoffman & Stretzer, 1998). Based on one of the studies conducted by McDonald's, et al. (2000) indicated that safety performance is one of the major measures that are significant for an organisation to create and sustain an atmosphere and environment that covers all safety aspect of employees. From the perspective of the individual, Burke et al. (2002) defines that safety performance as the action or behaviour of employees who made a routine practice in occupational activity with aims to enhance and promote the safety and health of other employees, customers, the public and the environment. Next, safety performance is also referred to as the level of safety that is used to control the number of accidents and injuries in the workplace (Siu et al., 2004). It is agreed by Grabowski, et al. (2006) where in a study they found that traditionally measured safety performance through method or formula after the loss of working days as the rate of accidents and injuries as well as the cost of incidents involving high financial implication.

The perspective of the other, Huang, et al. (2006) noted that the safety performance usually has the characteristics of self-reported and is a set of rules or concerted activities aimed at none other than and to enhance the safety in an organisation (Kho et al., 2007). In addition, safety performance also acts as a proxy and has to do with the safety of a significant (Christian et al., 2009) and measured or judged by the level of accident or injury occurring in an organisation (Vinodkumar & Bhasi, 2010).

Burke et al. (2002), in his study has developed a set of assumptions related to safety performance. The first assumption is about the measurement of safety performance evaluation and scaling where safety behaviours can be measured with how to do the assessment of frequency of workers involved in matters relating to occupational safety. Next, the second assumption that focus on safety behaviours are about the way or method to produce the potential for various factors that will shape the performance safety. While the third assumption suggests that factors are distinguished in terms of safety performance through various dimension antecedent variables such as accident, sickness and many others. Therefore, safety performance can be considered to have a variety of dimensions or multidimensional.



2.2.1 Definitions of Safety Performance

The definition of this safety performance has given emphasis on the need for the organisation to protect each employee from engaging with accidents and injuries (Kelloway, Stinson & MacLean, 2004). One of the challenges faced by the organisation is the highest level of safety performance (Wu, 2008). According to Hughes, Tippett, and Thomas (2004), safety performance is supposed to be key indicators to organisational performance regardless of other indicators. Similarly, Wu (2008) states that for an organisation, safety performance is becoming a major step in enhancing organisational performance without taking into account the results of other traditional measures of which the safety performance is usually judged by the rate of accidents in the workplace. However, there is some important assumptions relating to the definition of safety performance. The term safety performance is typically used to describe the condition or status of the level of safety in an organisation. Thus, the performance of the safety should be defined accurately and correct for the purpose of measuring and reviewing the relationship or influence to identify the condition or status of the level of safety in an organisation. From the beginning, many researchers have been recommending that safety performance as the main safety indicator for safety.

2.2.2 Dimensions of Safety Performance

In accordance with Borman and Motowidlo (1993), the performance consists of task performance and contextual performance or performances according to the context are two concepts that were agreed upon in most studies on work performance. Although there are various similar concepts and both this concept

continues to be the most popular and widely used extensively in organisational psychology explanations to describe performance. The performance of the tasks defined as activities that contribute to the main task in an organisation and set out in the document on official duties. While the performance according to the context in turn is defined as activities that are considered to be informal and voluntarily contributing to core aspect of social and psychological of an organisation (Borman & Motowidlo, 1997). Both this concept actually work performance has become the starting point for the construction and development of the concept of safety performance. Based on the theory of work performance which was inspired by the Borman and Motowidlo (1993), some difference between antecedent, deciding factors and components safety performance was proposed and discussed. Griffin and Neal (2000) assumes that the safety climate is antecedent to safety performance with safety knowledge and motivation to act as a determinant in which the safety compliance and safety participation contexts is safety performance components as shown on the safety (Neal & Griffin, 2002). In this context, the safety performance was considered best explained by Neal and Griffin to be a form of contextual performance of participation and compliance.

2.2.3 Instrument of Safety Performance

Most organisations measure their safety performance by trailing indicators such as number of accidents, LTI (Lost Time Injuries) and accident costs (Ingalls, 1999). Such statistical indicators may show the nature, the frequency and the severity of the accident but they reveal little about why it happened (Ingalls, 1999). To prevent an accident, it is of importance to identify its cause. Trailing indicators may also

have a low confidence level, since it is affected by a large number of variables such as the willingness to report and how to report an accident (Clarke, 1998). Therefore, trailing indicators may not accurately reflect the organisation's safety performance or reveals only little about it. (Goetsch, 2005). Another drawback with lagging indicators is that it is a reactive measurement method. That is, an accident or incident must happen before the organisation can identify what changes are needed in order to improve safety (Goetsch, 2005).

2.3 Safety Climate

2.3.1 Definition of Safety Climate

Safety climate can be defined as employees' shared perceptions of safety policies, procedures, practices, as well as the overall importance and the true priority of safety at work (Griffin & Neal, 2000; Zohar, 1980). It is a multidimensional factor and is regarded as an important antecedent of safety in the workplace. Measuring safety climate can be compared to taking the "safety temperature" of an organisation (Budworth, 1997), which provides a snapshot of that organisation's "state of safety" at a discrete point in time (Cheyne et al., 1998; Huang et al., 2007). Zohar (1980) developed the first measure of safety climate, based on sample in 1980 using a 40 items questionnaire covering metal fabrication, chemical, textile and food processing industries. After factor analysis, his final model included eight dimensions with workers' perceptions of the importance of safety training, management attitude towards safety, effects of safe conduct on promotion, level of risk at workplace, effects of work pace on safety, status of safety officer, effects of safe conduct on social status and status of safety committee. Attempts to delineate the underlying safety climate constructs and their relationships with self-report

indices of safety activity have been undertaken using a priori. Structural Equation Modelling (SEM) denotes safety activities include subjective appraisals of the physical work environment and workplace hazards (Brown, Willis, & Prussia, 2000; Cheyne et al., 1998), managerial assessments of employee's safety compliance (Prussia et al., 2003), safety hazards and self-reported compliance (Neal et al., 2000; Thompson et al., 1998), and safety participation (Neal et al.2002). In the same way that differences are reported in factor structures, vast differences are found in theoretical models derived from this process. Importantly, in all of these studies the path correlations between safety climate and the self-report safety activities show the degree of association between constructs to be moderate at best. Given that correlations between two perceptual constructs tend to be inflated (Miller & Monge, 1986) these modelling results may even be over-estimates of actual relationships. Nonetheless, some (Glendon & Litherland, 2000) argue that the utility of SEM resides in the revelation that safety climate exerts an indirect effect on safety behaviour, which is mediated by further variables such as transformational leadership (Barling, Loughlin, & Kelloway, 2002), the work context (Hofmann & Stetzer, 1996), and production pressures (Brown et al., 2000). The validity of the various SEM models is difficult to ascertain as all are based on self-report instruments and none have used independent variables to verify any relationships obtained. However, all the SEM studies report that the relationship between safety climate and safety activity (behaviour) is mediated by other variables. Overwhelmingly, this body of evidence suggests that there is no direct link between perceptual safety climate constructs and actual safety behaviour.

2.3.2 Dimension of Safety Climate

There are six safety climate dimensions in particular capture both competing organizational domains and consistency between policy and practice and have been regularly included in safety climate studies, namely, management safety practices, supervisory safety practices, safety attitude, safety training, job safety and co-workers safety practice (Mearns et al., 2001; Zohar, 2002; Cooper & Phillips, 2004). These six specific dimensions were chosen based on their frequent inclusion in safety climate studies in addition to evidence demonstrating their importance in predicting safe behaviour beyond alternative safety dimensions. For example, a number of reviews, field and meta-analytic studies examining a range of safety climate dimensions have demonstrated management commitment to safety as the strongest predictor of safety performance (Cox & Flin, 1998; Flin et al., 2000; Christian et al., 2009; Beuset et al., 2010). Priority of safety and pressure for production, despite having received less attention than management commitment to safety, are commonly used dimensions of safety climate which have been consistently found to predict safety outcomes such as unsafe behaviour (Mullen et al., 2004). Furthermore, Cox and Cheyne (2000), in developing a safety climate assessment tool, found that management commitment to safety, safety priority and the work environment (conflict between operational targets and safety) were deemed as some of the most highly ranked dimensions of safety climate for offshore workers.

2.3.2.1 Management Safety Practices

Safety management practices are the policies, strategies, procedures and activities implemented or followed by the management of an organization targeting safety of their employees. A recent review of safety climate studies, and thematic analysis of safety climate factors by Flin et al. (2000) found that 72% of the studies assessed the role of management. Management was also identified as one of only two factors (the other being workforce involvement) that were properly replicated across studies (Dedobbeleer & Beland, 1998). A third review of safety climate themes included a number of studies not covered in the two reviews above and found that management was the most frequently measured dimension. That management is a well-measured component of safety climate is therefore not disputed. Close inspection of the studies reveals that managerial factors also display a degree of association with safety outcomes. Good safety practice (GSP) is those protocols dealing with safety. The term is often used in connection with occupational safety and health (OSH) and may vary between industries or sectors. Management Safety Practices is composed of four functional components as follows:

- i. Safety Policy
- ii. Safety Risk Management
- iii. Safety Assurance
- iv. Safety Promotion

The Safety management systems have six elements:

- i. a safety plan;
- ii. policies, procedures and processes;

- iii. training and induction;
- iv. monitoring;
- v. supervision;
- vi. reporting.

This category is used to refer to all factors that non-supervisory management can directly influence.

2.3.2.2 Supervisory Safety Practices

A model that integrates the safety influences of managers is offered by Thompson, Hilton and Witt (1998), who tested a model based around two central pathways as follows;

- i) from ‘organizational politics’ to ‘manager support for safety’ to ‘safety conditions’;
- ii) from ‘supervisor fairness’ to ‘supervisor support for safety’ to ‘safety compliance’.

Management support for safety was also found to positively influence supervisor support for safety. Thompson et al. (1998) concluded that management have an influence on safety conditions but workforce compliance with safety rules and regulations under those conditions is influenced by the perceived fairness of the supervisor. Supervisors have been shown to have other important influences regarding safety climate. From three Spanish samples of ‘high risk organizations’, Tomas, Melia and Oliver (1999) found that supervisors played an important role in the accident prevention process by transferring the elements of safety climate to members of the workforce. Evidence for this came from support for a tested

model in which the causal chain ran from 'safety climate' to 'supervisor response' to 'co-worker response' to 'worker attitude', and then to 'safety behaviour', 'risk' and finally 'accidents'. Finally, from a study in the US steel industry, Brown, Willis, and Prussia (2000) found that safety climate was negatively related to supervisory pressure, indicating that positive safety climate is characterised by a low pressure working environment.

2.3.2.3 Safety Attitude

A workplace safety attitude refers to the employee tendency to respond positively or negatively towards a safety goal, idea, plan, procedure, prevention or situation. Safety attitudes influence employee choice of actions and response to challenges, incentives and rewards in the workplace. From that time a range of devices have been documented demonstrating that attitudes can influence behaviour. Many conditions have also been developed in which attitudes are essential behaviour predictors (Glendon and Stanton, 2000), particularly in their relationship to safe behaviours (Donald and Young, 1996). Positive workplace safety attitudes are essential for an accident free work environment that ensures higher efficiency, best quality, saves budget on cost of accident, raises employee morale, business profit and goodwill. A second aspect in this study deals with safety attitudes. Hannaford (1976) defines these as "a readiness to respond effectively and safely, particularly in tension-producing situations".

2.3.2.4 Safety Training

Safety training can cover a range of procedures from repairs and maintenance to office space safety and even tips on identity fraud and the safe use of chemicals. OSHA has put forth requirements as a guide to aid in the developing and implementing of a safety program for each workplace. A safety program can only be effective if there has been prior analysis of the work environment and an employee orientation. Establishing an effective safety program requires employers to be familiar with their responsibilities under the Occupational Safety and Health Act. For the purposes of OSHA, these requirements serve as the basis of every workplace safety program. A safety training analyses a company's immediate needs and provides for ongoing, long-lasting worker protection. Once it is designed, the program should be applied in the workplace. A safety program serves to anticipate, identify, and eliminate conditions or practices that could result in work-related injuries and illnesses. Ideally, the process of developing a workplace safety program will involve employees in its creation.

2.3.2.5 Job Safety

A job safety is a procedure which helps integrate accepted safety and health principles and practices into a particular task or job operation. In each basic step of the job is to identify potential hazards and to recommend the safest way to do the job. The condition of being protected from or unlikely to cause danger, risk, or injury. This job safety may contribute to, but is not the same as, the 'safety of work'. The safety of work relates to the likelihood and consequences of accidents arising from the way operational work is performed. The 'safety of work' as

‘operational safety’ in most organisations and most safety practitioners, job safety to be their primary concern (Provan et al., 2017).

2.3.2.6 Co- Workers Safety Practice

Much safety climate research has measured perceptions of the safety response of persons in possession of formal power within the organization who have a defined responsibility for others (such as senior managers and supervisors). For example, the most widely used group level safety climate scale contains items relating to supervisors’ expectations and actions (Zohar, 2000). However, those without formal power can also substantially influence organizational climates and group norms. Chiaburu and Harrison (2008) suggest that it is through exchanges with co-workers that individuals develop clear beliefs about what is expected of them, i.e. what they should and should not do in their work role. Drawing on the work of LaMontagne (2004), Tucker et al. (2008) suggest that social impact is a function of the strength, proximity and number of sources of influence. Although supervisors and managers have formal power (i.e. strength of influence), co-workers arguably have a greater ability to influence, as they are perceived to be work task “experts”. Also, co-workers are closer in proximity to other workers and relatively larger in number than managers and supervisors. All these factors combine to make co-workers an important source of influence. Co-workers also provide feedback and advice about appropriate behaviour when there is tension between different job-role requirements, such as productivity and safety. In a comprehensive meta-analysis, Chiaburu and Harrison (2008) report that co-

workers exert a unique influence on workgroup outcomes, over and above the influence of the group supervisor.

Burt et al. (2008) suggest that variation in workers caring about their co-worker's safety should be treated as a separate facet of safety climate. There is considerable empirical evidence to suggest that co-workers influence safety within workgroups. For example, Hofmann and Stetzer (1996) report that co-workers' willingness to approach a group member engaged in unsafe behaviour was a critical linking mechanism through which group processes predicted safety behaviour. More recently, Hsu et al. (2007) report that young workers in male dominated industries do not express their concerns about health and safety risks in order to appear mature to their older co-workers. Although the safety attitudes survey used by Siu et al. (2004) contained 11 items measuring colleagues' safety attitudes, these were combined with 22 items measuring the safety attitudes of managers, supervisors, workers themselves and others to create an aggregate safety attitude score, which was negatively correlated with occupational injuries. Consequently, it is impossible to ascertain whether co-worker's safety attitudes had any unique influence in this study. The safety climate survey deployed by Zhou et al. (2008) included three items measuring workmate's influences. They report that 4.7 per cent of a large sample of Hong Kong construction workers indicated that their workmates have a negative influence on safety behaviour, compared to 46.0 per cent who indicated their workmates have a positive influence. Using Bayesian analysis, Zhou et al. (2008) conclude that workers' safety behaviour is more sensitive to influence by workmates than by other personal characteristics, such as work experience and education.

2.3.3 Instrument of Safety Climate

The usual measurement in industry by workforce questionnaire surveys to assess what is called the “safety climate”. Currently, predictive measures are used as a tool in measuring safety climate to enable a better safety condition monitoring, which reduce the system to fail, to identify the root cause and take counter measure (Flin et al., 2000). Safety climate can be regarded as the surface features of the underlying safety culture. It assesses workforce perceptions of procedures and behaviours in their work environment that indicate the priority given to safety relative to other organisational goals. As organisations are inherently hierarchical in structure, there are multiple levels at which safety climate can be investigated for example, individuals, work groups, departments, organizations. Safety climate data are generally collected at the individual level, then aggregated to a higher level. The degree of homogeneity of workers’ perceptions, as a measure of climate strength, can also be considered. A number of different instruments are used to measure safety climate in industry. The resulting data offer managers an additional perspective on the state of their safety management systems and can also be used for benchmarking purposes and trends analysis. It has been argued that the essential dimension is management commitment to safety: while this is probably fundamental, industrial researchers do measure other aspects. The most common are in industry, workforce perceptions of safety climate have been linked to safety outcomes such as workforce injuries and to safety processes such as workers’ behaviours. Safety

climate surveys are now being increasingly used in healthcare organisations and several instruments have been developed.

2.4 Relationship between safety compliance and safety participation

Safety compliance on the other hand refers to the behaviours that are about engaging in core safety tasks, such as compliance with the organisation's safety rules and regulations, and following safety procedures (Griffin & Neal, 2000). It has now been established that leadership plays an important role in influencing employees' safety performance, particularly in terms of safety participation (Hofmann et al., 1998; Mullen & Kelloway, 2009).

2.5 Conclusion

The healthcare workers are exposed to various hazards at the place of work. The implementation of safety practice and policies are measures to prevent accidents from occurring at the hospital. Nevertheless, the workers exposed to various dimension of safety climate that affects the work progress at the same the safety performance at hospital environment. Even though not many studies were conducted in analysing the multi-climate framework that influences the safety performance of healthcare workers, an effective assessment method through survey questionnaire can deliver and predict the probable result on safety climate.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter will discuss the methodology and framework used to achieve the objectives of this study. The discussion will also explain all the processes involved in conducting this study that the initial planning, data collection and analysis involving the design and model studies and sampling.

3.2 Research Framework

Based on the study of literature and the questions raised from previous studies, the conceptual framework has been developed as shown in Figure 3.1, leading to an independent variable with six dimensions that can affect the dependent variable with two components. The independent variables in this study is that safety climate and safety dimension of management safety practices, supervisory safety practices, safety attitude, safety training, job safety, co-workers safety practice. While the dependent variable is the safety performance of its components, namely safety compliance and safety participation.

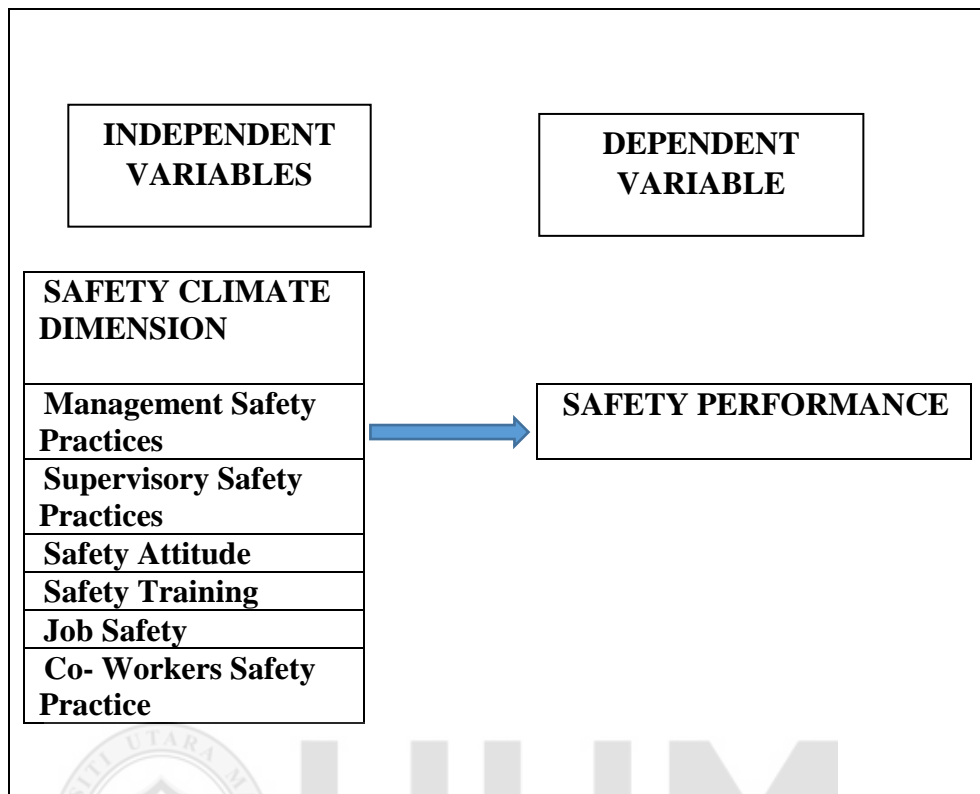


Figure 5
Conceptual Framework Study

3.3 Research Hypotheses

Based on the issues and objectives of the study, six hypotheses are set to be tested as shown in Figure 3.2. According to Sekaran & Bougie (2009), the hypothesis is recorded as a formal proposal for an assumed logic relationship between two or more variables based on the framework for research that can be tested empirically to find a solution to the problem statement.

The hypotheses were as follows:

3.3.1 Hypothesis 1

The management safety practice are mechanisms that are integrated in the organization (LaMontange et al., 2004) and designed to control the hazards that can affect workers' health and safety. Safety management practices are the policies, strategies, procedures and activities implemented or followed by the management of an organization targeting safety of their employees. Therefore:

Hypothesis 1 (H1): There is a significant relationship between management safety practices and individual safety performance.

3.3.2 Hypothesis 2

The supervisory safety practice was explained by Brown, Willis, and Prussia (2000) found that safety climate was negatively related to supervisory pressure, indicating that positive safety climate is characterised by a low pressure working environment. Therefore: Hypothesis 2 (H2): There is a significant relationship between supervisory safety practices and individual safety performance.

3.3.3 Hypothesis 3

The safety attitude involves conditions being developed in which attitudes are essential behaviour predictors (Glendon & Stanton, 2000), particularly in their relationship to safe behaviours (Donald & Young, 1993). Therefore: Hypothesis 3 (H3): There is a significant relationship between safety attitude and individual safety performance.

3.3.4 Hypothesis 4

The Meta-analysis studies also reported strong empirical evidence of the effectiveness of safety training on employees' safety behaviours (Yule et al.,2007)

Therefore Hypothesis 4 (H4): There is a significant relationship between safety training and individual safety performance.

3.3.5 Hypothesis 5

The job safety as 'operational safety' in most organisations and most safety practitioners, job safety to be their primary concern (Von Thadsen et al., 2013).

Therefore Hypothesis 5 (H5): There is a significant relationship between job safety and individual safety performance.

3.3.6 Hypothesis 6

Chiaburu and Harrison (2008) report that co-workers exert a unique influence on workgroup outcomes, over and above the influence of the group supervisor.

Therefore Hypothesis 6 (H6): There is a significant relationship between the co-workers safety practice with in individual safety performance.

3.3.7 Hypothesis 7

Flin et al. (2000), Christian et al. (2009), Marsh et al. (2000) and Budworth et al. (1997) found that safety climate dimension has an influence on safety performance. Therefore, Hypothesis (H7): Safety climate dimension do influence safety performance.

3.4 Research Design

The research design is a framework for the implementation of the study in which he explained the procedure necessary to obtain the data required to solve research problems in detail. This study is an overview of the situation in relation to the interests of individual researchers, organisation and other perspectives (Now, 2000). It involves collecting instrument data through questionnaires and visits in terms of knowledge, understanding, acceptance and opinion of respondents to the survey.

In this study, quantitative research methods will be used where it will see the effect and the relationship between the dependent variable and independent variables. According to Carder and Ragan (2003), used a quantitative research study to look at the problems that need to be clarified to explain the trend or influence and relationships between all variables. The study was conducted by cross sectional study in which data will be collected one time only.

3.5 Operational Definition

3.5.1 Safety Performance

Based on Griffin and Neal's safety performance framework (2000), there are two distinct forms of safety behaviours: safety participation and safety compliance. Safety participation refers to employee's voluntary participation in safety activities, which aims to contribute to the development of a supportive safety environment. Examples of safety participation include voluntary participation in safety meetings (Griffin and Neal, 2000), raising safety concerns (Mullen, 2004)

and promoting safety programmes in the organisation (Kelloway et al., 2004). Safety compliance on the other hand refers to the behaviours that are about engaging in core safety tasks, such as compliance with the organisation's safety rules and regulations, and following safety procedures (Griffin & Neal, 2000). It has now been established that leadership plays an important role in influencing employees' safety performance, particularly in terms of safety participation (Hofmann et al., 2003; Kelloway, 2004). Safety performance is considered as a safety assessment process for both individuals and organizations (Yule et al. 2007). In Barling et al., (2011), safety performance was used to assess the extent to which an organization could avoid accidents and mistakes. At an organizational level, safety performance is seen as a safety assessment, which is able to help organizations assess the effectiveness of management in the context of both controlling and eliminating workplace accidents (Khdair, Shamsudin & Subramaniam, 2012). In the present study, safety performance indicated the level of safety condition in the organization, which was measured using Safety Performance Scale (SPS), adapted from Wu, Chen and Li (2008). The dimensions included safety organization and management, safety equipment and measures, safety training practice, safety training evaluation, accident statistics, and accident investigation.

3.5.2 Safety Compliance

First, based on definitions of task performance, we use the term safety compliance to describe the core safety activities that need to be carried out by individuals to maintain workplace safety. These behaviours include adhering to tagout and lockout procedures and wearing personal protective equipment. The

components of performance describe the actual behaviours that individuals perform at work. Borman and Motowidlo (1993) proposed two major components of performance: task performance and contextual performance. These two components of performance can be used to differentiate safety behaviours in the workplace.

3.5.3 Safety Participation

The definitions of contextual performance, use the term safety participation to describe behaviours such as participating in voluntary safety activities or attending safety meetings. These behaviours may not directly contribute to workplace safety, but they do help to develop an environment that supports safety. The determinants of performance represent the proximal causes of variability in performance. These are the factors that are directly responsible for individual differences in task and contextual performance. Cooper (1995) argued that there are only three determinants of individual performance: knowledge, skill, and motivation. Safety performance, therefore, must be determined by knowledge and skills necessary for particular behaviours and by the motivation of individuals to perform the behaviours.

Worker participation refers to any process in the company that allows workers to exert influence over their work or their working conditions. Worker participation is obligatory in various processes in the company due to European legislation. In practice, it can be seen as a powerful instrument in safety and health management and is strongly recommended by Occupational Safety Health experts as well as by the authority body to generally involve the workers and their representatives.

3.5.4 Management Safety Practice

Safety management relates to the actual practices, roles and functions associated with remaining safe (Khdair et al., 2012). It is usually regarded as a sub-system of the total organizational management and is carried out via the organization's safety management system with the help of various safety management practices. Safety management systems are mechanisms that are integrated in the organization (Lin et al., 2008) and designed to control the hazards that can affect workers' health and safety. Safety management practices are the policies, strategies, procedures and activities implemented or followed by the management of an organization targeting safety of their employees. They are the essential elements permitting an effective management of safety in firms and are designed to comply with the existing legislations applicable to the organization. The extent to which these practices are implemented in an organization will be manifested through various actions and programmes of the management and will be clearly visible to an insider like an employee. Safety management system (and its practices) can be regarded as an antecedent of the firm's safety climate.

3.5.5 Supervisory safety practices

Whereas Zohar (2008) included only two layers of management (i.e., shop-floor supervisors and their immediate superiors in the intervention, the present series of studies also included top management. This was done by regularly providing senior managers with summary information, designed to induce changes in role definitions of level-1line supervisors, specifically, including the responsibility for workers' behavioural safety as part of supervisory

activity. Such changes were stimulated by demonstrating that line supervisors could enhance subordinates' safety performance during routine work if higher level managers expected them to do so. Since the established means of human-resources (HR) management are often of limited effectiveness in this context, this offers a viable and attractive managerial strategy. The significance of such a role change can be appreciated considering the many organizations where supervisory roles are defined in terms of productivity and quality criteria, leaving safety behaviour a contingent, often ill-defined aspect (Rozhan et al., 1990). Thus, although we used external observation of workers' safety performance during intervention (which may resemble conventional behavioural safety intervention), the information was used (jointly with safety-oriented supervisory interaction) to change managerial role definitions rather than workers' safety behaviour.

3.5.6 Safety Attitude

A second aspect in this study deals with safety attitudes. Peterson (2000) defines these as “a readiness to respond effectively and safely, particularly in tension-producing situations”. The study of attitudes has progressed considerably since the 1960s when attitudes were unimportant influences on, and weak predictors of behaviours (Prussia et al., 2003). From that time a range of devices have been documented demonstrating that attitudes can influence behaviour. Many conditions have also been developed in which attitudes are essential behaviour predictors (Glendon & Stanton, 2000), particularly in their relationship to safe behaviours (Coyle et al., 1993).

3.5.7 Job Safety

The job safety can be divided into four aspects which are social safety by affirming that safety is valued and achieved. The demonstrated safety by proving safety to external stakeholders and administrative safety by establishing and following clear rules and requirements for safety. The physical safety by changing the work environment for safety. This job safety may contribute to, but is not the same as, the 'safety of work'. The safety of work relates to the likelihood and consequences of accidents arising from the way operational work is performed. The 'safety of work' as 'operational safety' in most organisations and most safety practitioners, job safety to be their primary concern (Hsu et al., 2007).

3.5.8 Co- Workers Safety Practice

However, co-workers in comparison to supervisors and senior managers will have a stronger influence on mitigating the effect of job demands on hazardous work events. First, since job demands occupy employee cognitive-energetical focus, those in the immediate work environment are most able to disrupt employee focus on job demands. Second, co-workers are exposed to similar situations and hazards so have considerable self-interest and experience in ensuring the circumstances within which they operate are safe (Williamson et al., 1987). Third, co-workers have greater opportunity through frequency of contact to warn their workmates of potential dangers (Hale et al., 1997). Fourth, it is more likely to find friendships among co-workers than among employees of differing organizational ranks, leading to a greater desire among front-line workers to prevent harm befalling one another (Burt, Sepie, & McFadden, 2008).

3.6 Measurement of Variables

Sets of questionnaires were used to obtain data from respondents. The questionnaire used was adapted from a combination of questionnaires Lu and Tsai (2008) and Vinodkumar & Bhasi (2009). It is divided into eight sections containing 64 questions covered by nominal scale for respondents' background and Likert Scale (1 = strongly disagree, 2 = agree, 3 = not sure, 4 = agree, 5 = strongly agree) for all variables as shown in Table 3.1.

Table 3.1
Summary of Assessment Instrument

Num. Section	Questions	Aspects of The Study	Scale	Notes
I	5	Demographic of Respondent	Nominal	
II	12	Management Safety Practices,	Likert	Adaptation of Lu and Tsai (2008)
III	9	Supervisory Safety Practices,	Likert	Adaptation of Lu and Tsai (2008)
IV	8	Safety Attitude,	Likert	Adaptation of Lu and Tsai (2008)
V	7	Safety Training,	Likert	Adaptation of Lu and Tsai (2008)
VI	6	Job Safety,	Likert	Adaptation of Lu and Tsai (2008)
VII	5	Co- Workers Safety Practice	Likert	Adaptation of Lu and Tsai (2008)
VIII	7	Safety Compliance	Likert	Adaptation of Vinodkumar, M. N., &Bhasi, M. (2009)
IX	5	Safety Participation	Likert	Adaptation of Vinodkumar, M. N., &Bhasi, M. (2009)

Notes: * Question shaped reverse-scored

3.7 Population

From the point of scientific research, the population is defined as people, events or records that have the necessary information and can clarify the question of measurement (Cooper & Philip, 2004). In this study, the population is all employees of the Serdang Hospital, which comprises Management and Professional Group and the Implementation Group who are directly involved in the process of healthcare. According to records obtained from the Management Services Serdang Hospital, there were 2154 employees Serdang Hospital today. Thus, this amount will be used as the size of the population and random sampling were carried out.

3.8 Sampling

Sampling is a process to select the appropriate number of elements of the population to undertake a study to obtain the understanding of the situation and the particular characteristics of these populations. The sample is also a subset of the population. According to Sekaran & Bougie (2009), the sampling is necessary to save time, expense, energy and human resources, especially those involving large populations. In addition, samples will also provide a more means for potential errors from data obtained can be reduced, especially when it involves large amounts of data (Sekaran & Bougie (2009)). Therefore, based on the findings by Krejcie and Morgan (1970), the population consisted of 2154 people, the most appropriate to be sampled were 100 people for this study. The questionnaire, along with return envelopes addressed to the researchers, was initially distributed randomly through the internal mail system to all members of the organization

3.9 Data Collection

This study used primary data. Primary data is preliminary information obtained in relation to variables that are very interesting to study (Sekaran & Bougie, 2009). To get the required data, a questionnaire was sent to the officer in charge at Hospital Serdang involved and subsequently distributed to the respondents. Instructions answer was clearly stated in the questionnaire. Respondents will be given sufficient time to complete the questionnaire without any influence and coercion. All questionnaires were collected for analysis. Simple random sampling technique used in this study because it is believed to provide equal opportunity to be selected as the sample population (Zikmund, 2010). Although this method requires a lot of time to implement, but the percentage of questionnaires that can be regrouped acceptable. However, determining the number of samples for each department or wards must take place first through the ratio of the percentage of the population. Table 3.2 shows the determination of the sample was based on the ratio of the percentage of the population

Table 3.2
Sample composition by Hospital staff Operating Department/Wards

Unit	Population (person)	Percentage (%) *	Samples (people) **
Wards	1338	62.1%	61
Clinic	461	21.4%	7
Departments	356	16.5%	24

3.10 Techniques of Data Analysis

The data obtained were analysed using Statistical Package for Social Science version 23 (SPSS) and subsequently analysed using descriptive analysis, reliability analysis, Pearson correlation and regression testing. Descriptive analysis such as frequency, percentage and mean are made to explain the demographics of the respondents and the information of all the variables in this study. Meanwhile, reliability analysis was conducted to determine the level of reliability and validity of the instrument and ensure that research can be carried out. Next, Pearson correlation carried out to see the relationship between the independent variables and the dependent variable. The degree of strength of the relationship between each of the independent variables with the dependent variable was analysed to identify important aspects that are more significant to safety performance.

Finally, multiple regression test was conducted to study the strength of the relationship between the independent variables and the dependent variable. Rating strength of the relationship between the independent variables and the dependent variable will determine the dimensions of the safety climate that would be detrimental to the safety performance subsequently determined in a smaller scale without the proper standard (Zikmund, 2010).

3.11 Conclusion

This chapter describes the methods for conducting studies made to achieve the objectives of the study. In addition, it also describes the overall on the instrument used to enable real answers obtained regarding the reliability and validity of the instrument used and the research carried out.



CHAPTER 4.0

RESULTS AND DISCUSSION

4.1 Introduction

This chapter includes a discussion of the findings and analysis of the collected data obtained by using SPSS. All data were analysed using analysis of reliability, Pearson Correlation to determine the relationship between variables, multiple regression test to test the level dominant independent variables and the dependent variable descriptive analysis of frequency and percentage of the respondent as well as means and standard deviations for all variables.

Table 4.1.1

Research Samples Feedback Ratio (n=92)

Questionnaire Feedback	Number	Percentage
Forms Distributed	150	100%
Forms Returned	115	76.67%
Forms Can be Used	92	61.33%

Random sampling method was used for this study because it is believed to provide equal opportunity to be selected as the sample population (Zikmund, 2003). Of the 150 copies of questionnaires were distributed, 115 (81.43%) were returned and 92 (72.86%) can be used and recorded for further study as shown in Table 4.1.1.

Table 4.1.2

Demographic Studies

Items	Classification	Number	Percentage (%)
Age	20-30 years	48	52.2
	31-40 years	20	21.7
	41-50 years	19	20.7
	>50 years	5	5.4
Gender	Male	16	17.4
	Female	76	82.6
Nationality	Malaysian	92	100
	Others	0	0
Position	Doctors	7	7.6
	Nurses	61	66.3
	Safety Officer /Supervisors	10	10.9
	Others	14	15.2

Table 4.1.2 describes the demographic profile of the respondents involved in this study. As shown, more than half of the respondents were aged younger-level staff of between 20 up to 30 years (52.2%). Similarly, respondents among female staff is seen more give feedback with a share of 82.6% compared to male staff.

These results indicate that the sample can be representative of the population in Serdang Hospital staff.

4.1.1 Studied Variables

The standard deviation describes the spread of the distribution of samples of min and probably the most valuable index for dispersion wherein if the estimate of the variance is smaller than the standard one, it shows that respondents are very consistent in their opinion, on the contrary, if the estimated standard deviation is greater of the three, it shows respondents have variations in their view (Hair et al., 2010). Table 4.1.3 summarizes the mean values for all independent and dependent variables. Overall, the mean values for all variables are between 2.09 (safety attitude) and 4.61 (management safety performance). Two variables (management safety performance and supervisory safety performance) has a mean value exceeds four, while the rest have a mean value less than 3.84 (safety attitude, safety training, job safety and co-workers safety practice).

Table 4.1.3

Mean and Standard Deviation (SD)

No	Variables	Mean	SD
1	Safety Performance (SP)	3.60	0.31
2	Management Safety Performance (MSP)	4.61	0.34
3	Supervisory Safety Performance (SSP)	4.11	0.51
4	Safety Attitude (SAtt)	2.09	0.46
5	Safety Training (STra)	3.84	0.42
6	Job Safety (JSafety)	2.22	0.42
7	Co-Workers Safety Performance (CWSP)	3.73	0.48

A management safety practice to employee safety has the highest mean value of 4.61 with a standard deviation value 0.34. However, the safety attitude involvement of employees recorded the mean value. The lowest value of 2.09 with a standard deviation of 0.41. The standard deviation of all the variables is less than one. This shows that the views expressed by respondents through feedback has a small variation. Relatively, the standard deviation of involvement employee of 0.51 is the highest among the independent variables, while Supervisory Safety Performance recorded the highest standard deviation of 0.51 for the dependent variable.

4.2 Reliability Test

Table 4.2 shows that all the variables item has a coefficient value between 0.920 (management safety performance) and 0.712 (co-workers safety performance) and no removal of the item is made. According Nunally (1978), an instrument with high reliability coefficients must have a value greater than 0.7 for all the scales measured. Thus, it indicates that the item variable which has a high level of reliability and acceptable.

Table 4.2

Variable Coefficient Reliability Study (n = 92)

Variables	Number of Items	Coefficient Reliability	Item Removal
Safety Performance	10	0.854	-
Management Safety Performance (MSP)	12	0.920	-
Supervisory Safety Performance (SSP)	9	0.857	-
Safety Attitude (SAtt)	8	0.757	-
Safety Training (STra)	7	0.769	-
Job Safety (JSafety)	6	0.765	-
Co-Workers Safety Performance (CWSP)	5	0.712	-

4.3 Normality Test

In statistics, normality tests are used to determine if a data set is well-modelled by a normal distribution and to compute how likely it is for a random variable underlying the data set to be normally distributed. The test rejects the hypothesis of normality when the p-value is less than or equal to 0.05. Failing the normality test allows you to state with 95% confidence the data does not fit the normal distribution. Passing the normality test only allows you to state no significant departure from normality was found. The normality test shows that the data obtain area well distributed and significant.

4.4 Research Result Summary

Table 4.4

Research Hypotheses Summary

Hx	Hypotheses	Result
H1	There is a correlation between management safety practices and individual safety performance.	Accepted
H2	There is a correlation between supervisory safety practices and individual safety performance.	Accepted
H3	There is a correlation between safety attitude and individual safety performance.	Accepted
H4	There is a correlation between safety training and individual safety performance.	Accepted
H5	There is a correlation between job safety and individual safety performance.	Accepted
H6	There is a correlation between the co- workers safety practice with in individual safety performance.	Accepted
H7	There is a significant influence of safety climate dimensions on safety performance	Accepted

4.5 Conclusion

This chapter explains the findings of this study. All research data were analysed using SPSS software by doing the most relevant methods in analysing data such as reliability testing, descriptive statistical tests, Pearson correlation tests and multiple regression tests. All discussions related to the findings of the analysis will be elaborated in the next chapter.

CHAPTER 5

DISCUSSION AND CONCLUSION

5.1 Introduction

This chapter will discuss the results of the findings, the implications of the study, recommendations and conclusions of the studies that have been carried out. The discussion will take place based on all the variables studied, namely the management safety practices, supervisory safety practices, safety attitude, safety training, job safety, co-workers safety practice which is the dimension of the safety climate and safety performance as well as its components (safety compliance and safety participation).

This study aimed to determine and study the relationship between six dimensions of climate safety with safety performance components. There are three main objectives to be achieved in this study that examined the relationship between dimensions of safety climate with safety performance, with the safety compliance and safety participation.

In carrying out the process of analysis, SPSS was used to analyse all the data collected by several methods and mathematical statistics. Among such methods Descriptive analysis, correlation test and many others. However, only the right method used in this study to obtain results that are important to achieving the objectives of the study and helped to make a practical conclusion.

In addition, a total of 92 people comprising staff of the operation Serdang Hospital were involved as respondents for this study.

Through Pearson Correlation, three of the six dimensions of safety climate commitments management safety practices, supervisory safety practices and safety

attitude have a significant correlation with the safety performance and safety compliance ($p < 0.01$). Meanwhile, the six dimensions of safety climate of management safety practices, supervisory safety practices, safety attitude, safety training, job safety, co-workers safety practice of risk has a significant relationship with the safety participation.

In addition, regression test showed that the safety attitude of workers with co-worker's safety performance is a two-dimensional table of the most dominant safety as well as providing a significant impact on the dependent variable. Although only safety participation alone was affected by the involvement of workers and the safety of fellow employees other than safety training and job safety. Meanwhile, the attitude of the safety does not have an influence on all dependent variables

Empirically, this study explains that in order to increase the level of safety performance in Serdang Hospital, priority should be given to the inclusion of one of the safety components which is performance with an emphasis on supervisory safety practice commitment to worker safety and the management safety practice in a safety climate. Respondents argue that the supervisory safety practice and the management safety practice as an important dimension of the safety climate in increasing the level of their awareness of work safety through safety participation. This in turn can reduce the number of accidents, incidents and injuries due to occupational accidents (Zohar 1980).

5.2 Discussion

5.2.1 The Relationship Between Management Safety Practices with all Dependent Variables

From this study, it was found a significant relationship between management safety practices with all dependent variables. Management safety practices show the coefficient is the highest of safety performance (0.920). This situation clearly shows that to improve the performance level of safety through management safety practices in Serdang Hospital especially management commitment to safety should be given priority and emphasis in any program or activity conducted. Thus, the findings agreed with the view Cascio and Baughn (2000) which states that any programs or activities related to job safety will fail if the employer does not give full commitment to job safety.

In addition, worker safety commitment through safety attitude, safety training, job safety and co-workers safety practice is also an important matter related to personnel safety priorities and translates as level or any level of cooperation and commitment shown by the staff to create a safe working environment and working conditions are safe. These include the extent to which among staff comply with safety procedures, taking proactive steps to adopt safe behaviour and always adhere to the guidelines. If all employees to demonstrate their commitment to job safety, it will certainly contribute to the work environment and work activities safe, quality and cause a sense of awareness of occupational safety. In fact, the staff commitment to job safety can also help in improving the knowledge and skills in performing their duties and responsibilities as well as indirectly making safe work practices a culture that is being practiced in the performance of their duties.

5.2.2 The Relationship Between Supervisory Safety Practices with all Dependent Variables

From this study, it was found a significant relationship between supervisory safety practices commitment to workers safety with all dependent variables. Supervisory safety practices to the safety of workers shows the coefficient is the second highest of safety performance (0.857), compliance with safety performance (0.499). This situation clearly shows that to improve the performance level of job safety through participation in Serdang Hospital especially safety aspects of staff commitment to job safety should be given priority and emphasis in any program or activity conducted.

5.2.3 The Relationship Between Safety Attitude with all Dependent Variables

From this study, it was found that there was no significant relationship between safety attitudes with all dependent variables. This situation may be caused by the environment or the working conditions which do no longer considered dangerous or risky as has become routine in the process of healthcare service in the hospital. Furthermore, the position of the workplace or 'official' part of the operating personnel is located in the ward or laboratory that is constantly exposed to occupational hazards. For example, the staff assumed an injured limb (fall, chemical spill, sharp objects, iron shrapnel and others) are relatively common in the occupational activities and technicalities. Although, this situation does not reflect Serdang Hospital staff did not have a positive attitude toward safety for all activities carried out is in accordance with the procedures and guidelines laid down by the organisation. This finding is contrary to the Kelley (1996), which describes the negative attitude of safety may be seen

through the characteristics of employee behaviour that is unwanted, such as indifference, always happy, always fighting, impatient, too impulsive, take it easy all times, careless, over-confident, do not think seriously and others.

5.2.4 The Relationship Between Safety Training with all Dependent Variables

From this study, it was found a significant relationship between safety training with all dependent variables. The safety training shows the value of r^2 is the second highest of safety performance (0.348). This situation clearly shows that the safety training to the safety of personnel work is also an important factor that should be considered in addition to the factor of job safety commitments to improve the safety performance of the work in Serdang Hospital.

As Serdang Hospital running healthcare service based on technology that involves the use of machinery, equipment and hazardous chemicals in the activities, staff will be constantly exposed to various risks of job safety that exists as a result of the activities of employment uncertainty and the pressures of work. Thus, the perception of risk is an important component for assessing the risk of staff in the performance of their duties and how they manage that risk. Perceptions of risk can be defined as the subjective perception of the chance of accident or injury that occurs when the source of the risk of collision (Rundmo, 2000).

5.2.5 The Relationship Between Job Safety with all Dependent Variables

From this study, it was found employee engagement on job safety is significantly correlated with the safety performance. This may be caused by all the safety policy; safety rules and safety procedures has been provided by the organisation's top management since long ago without involving other staff including Safety Committee. It may also be that the staff Serdang Hospital not involved in the process of making decision this point.

However, with the coefficient is the third highest (0.218) on the participation of safety, it gives an indication that employee engagement contributes little impact towards improving safety performance (safety participation) organisation. However, it does not mean that the dimensions of job safety are important and cannot be ignored, but priority will be focused on other dimensions that provide a significant impact on improving safety performance.

A significant and positive relationship between employee involvements with safety performance in this study is consistent with the findings of several studies Hem (Vinodkumar & Bhasi, 2010; Johnstone et al., 2005). In fact, there are also other studies that have found a significant and positive relationship between employee engagement with a lower accident rate (DePasquale & Geller, 1999).

5.2.6 The Relationship Between Co- Workers Safety Practice with all Dependent Variables

Regression testing of Surveys, co- workers safety practice only had a significant relationship with the safety performances ($p < 0.05$). This situation shows that the

safety of fellow employees on staff Serdang Hospital affect the safety performance of the organisation. This is because co-workers or other employees in the workplace environment is more likely to serve as the principal point of reference other personnel in the social group of employees. It is based on the definition of the behaviour of the citizens safe by Hale (2000) which stated that helps colleagues on matters that pertain safety, reporting dangerous situations and emphasize that the management can make improvements in terms of job safety. Sharing safety-related perceptions conceptualized by Zohar (1980) as a frame of reference to guide employees to behave according to the safety guidelines. However, with the coefficient is the lowest (0.712) on the safety performance, it gives an indication that the safety of co-workers had little effect in improve safety performance (safety compliance and safety participation) organisation. However, just as the involvement of employees, it does not mean safety colleagues is not important and can be ignored, just another dimension of climate safety will prevail advance in the process of improving safety performance Serdang Hospital

5.3 Implications of Research

Apart from a slight contribution from the academic standpoint, this study can help and provide useful input to the management to improve efficiency, particularly in the context of the management of occupational safety. As hospital which is based on healthcare service and staff exposed to the risk of occupational accidents in the healthcare service activities, Serdang Hospital need to create safe work atmosphere or in other words to make a safety climate in work culture as a priority, especially commitment worker safety and risk perception of workers to ensure safety performance through compliance with safety and safety can be improved by workers participate and achieve the expected level.

In fact, the emphasis on safety climate in the organisation and safe work practices practiced by the employees will realize a good relationship with its employees and the management of which will drive an increased level of safety performance of the organisation. This in turn will build and strengthen awareness of job safety to staff and operating expenses organisations can be save because there is no cost incurred due to accident injuries.

In addition, this study can also help provide recommendations and practical methods to management Serdang Hospital and provide information to Hospital Safety Committee for the purpose of establishing strategies and programs related to enhance safety in workplace and related to implementation of teaching and learning and can be used as a basis for planning and development of job safety for all employees in Serdang Hospital.



5.4 Recommendations

Based on the results, discussion and conclusions of the studies conducted, some relevant recommendations to be applied at the organisational level and future research were outlined as a reference and guide.

5.4.1 Recommendations to the Organisation

- i. Serdang Hospital should be more proactive in holding more job safety training for safety training provided to staff to raise awareness of safety. Furthermore, OSHA, 1994, Section 15 (2) (c) states that the need for the provision of information, instruction, training and as may be necessary to ensure as far as

practicable, the safety and health of workers at work. According to Goldsmith (1987) and Hinze (1997), when employees participate in safety training, a job can be executed with quality and creating awareness of safety.

- ii. Serdang Hospital should provide job safety program continuously or systematically with Hospital Safety Committee should be responsible and play a role in ensuring job safety program is always held. Programs like these can train the staff to be sensitive to job safety. In addition, through this program, Hospital safety committee can make research on issues related to occupational safety among employees and work to solve them.
- iii. Serdang Hospital need to diversify the forms of existing safety programs work the same as if the program was carried out by charging the same will lead to staff being bored and not interested in job safety. Hospital safety committee have to be creative to make occupational safety program more fun and interesting and meaningful participation of many employees in each of the activities.
- iv. Serdang Hospital should intensify awareness campaigns through job safety because it can provide input and information to staff about the importance of job safety. Furthermore, staff awareness of occupational safety can be built and created if organisation always emphasis safety policies and regulations to employees.
- v. Serdang Hospital should carry out law enforcement and work safety regulations as a whole to educate and build awareness of the importance of job safety so that a more harmonious work environment and achieve the level of good safety performance.

5.4.2 Proposed Future Study

- i. Increase research target group to further validate and verify the effect of safety climate on safety performance and confirm the relationship and commitment to worker safety of safety performance dimension and its components as the scope of this study only focused on the staff on duty at the operations in the Serdang Hospital with a relatively small number of respondents i.e. 92 people.
- ii. Expanding the scope of the study to other hospital and involve more significant sampling on staff
- iii. Consider the other factors at work that can contribute to the achievement of safety among workers as motivation, personality and many others.
- iv Touching on the issue of health is still poorly implemented.

5.5 Conclusion

Overall, this study has managed to explain the influence of safety climate over safety performance where most of the hypothesis was accepted and empirically verifiable. It is hoped that this study will contribute to the field of safety management and a reference to the various parties in implementing programs related to occupational safety and health in healthcare environment.

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APPENDIX A



UNIVERSITY UTARA MALAYSIA

KUALA LUMPUR CAMPUS

SCHOOL OF BUSINESS

**PROGRAM : SARJANA SAINS (KESELAMATAN DAN
PENGURUSAN KESIHATAN PEKERJAAN)**

**TAJUK : PENGARUH IKLIM KESELAMATAN KE ATAS
PRESTASI KESELAMATAN DI KALANGAN
PEKERJA DI HOSPITALSERDANG.**

PENSYARAH : DR MUNAUWAR BIN MUSTAFA

NAMA PELAJAR : MUTHURAMAN A/L SELLATHURAI PATHAR

NOMBOR MATRIK: 816630

**SOAL SELIDIK KAJIAN PENGARUH IKLIM KESELAMATAN KE ATAS
PRESTASI KESELAMATAN DI KALANGAN PEKERJA DI HOSPITAL
SERDANG.**

Soal Selidik mengandungi sembilan (9) bahagian:

Profil Responden dan Surat Persetujuan

Bahagian A: Demografi Responden

Bahagian B: Amalan Keselamatan Pengurusan

Bahagian C: Amalan Keselamatan Pihak Penyelia

Bahagian D: Sikap Keselamatan

Bahagian E: Latihan Keselamatan

Bahagian F: Keselamatan Kerja

Bahagian G: Amalan Keselamatan Rakan Sekerja

Bahagian H: Pematuhan Keselamatan

Bahagian I: Penyertaan Keselamatan

SURAT KEBENARAN

Soal selidik ini mengandungi Sembilan bahagian dan objektif kajian ini mengenalpasti pengaruh kepada iklim keselamatan dan prestasi keselamatan dalam Keselamatan dan Kesihatan Pekerjaan di hospital.

Saya, dengan ini memberi persetujuan untuk mengambil bahagian dalam soal selidik ini.

Saya faham maklumat yang diberikan akan rahsia pada setiap masa dan hanya menggunakan tujuan penyelidikan sahaja.

Tinjauan ini meminta pendapat anda mengenai isu-isu iklim keselamatan di hospital anda dan akan mengambil masa kira-kira 10 hingga 15 minit untuk disiapkan.

Tandatangan Responden: _____

Nombor Kad Pengenalan : _____

Tarikh : _____

**KAJIANPENGARUH IKLIM KESELAMATAN KE ATAS PRESTASI
KESELAMATAN DI KALANGAN PEKERJA DI HOSPITAL SERDANG**

Bahagian A: Demografi Responden

Arahan: Sila tandakan (X) pada ruang yang berkaitan.

- 1) Umur 20-30 tahun 41-50 tahun
 31-40 tahun > 50 tahun
- 2) Jantina Lelaki Perempuan
- 3) Warganegara Warga Malaysia BukanWargaMalaysia
- 4) Jawatan Pekerja Am PegawaiKeselamatan/
 Kontraktor Penyelia
 Eksekutif
- 5) Hospital

Bahagian B: Amalan Keselamatan Pihak Pengurusan

Arahan: Sila bulatkan jawapan anda pada skala yang bersesuaian..

1	2	3	4	5
Sangat Tidak Setuju	Tidak Setuju	Tidak Pasti	Setuju	Sangat Setuju

1. Hospital saya pantas memberikan respon kepada masalahkeselamatan	1	2	3	4	5
2. Hospital saya memberi maklumat tentang keselamatan	1	2	3	4	5
3. Hospital saya mengadakan mesyuarat tentang keselamatan pekerja secara berkala	1	2	3	4	5
4. Hospital saya akan menyiasat masalah keselamatan dengan segera	1	2	3	4	5
5. Hospital saya menjalankan pemeriksaan keselamatan dengan kerap	1	2	3	4	5
6. Hospital saya menyediakan peralatan keselamatan yang cukup	1	2	3	4	5
7. Hospital saya sentiasa memaklumkan tentang bahaya kepada pekerja-pekerja	1	2	3	4	5

8. Hospital saya memberi penekanan kepada keadaan kerja yang selamat	1	2	3	4	5
9. Hospital saya menyediakan program latihan keselamatan yang mencukupi	1	2	3	4	5
10. Hospital saya menyediakan peralatan keselamatan yang baik	1	2	3	4	5
11. Hospital saya melabelkan tanda amaran pada bahan kimia yang berbahaya.	1	2	3	4	5
12. Hospital saya memberi ganjaran kepada pekerja yang berkerja dengan selamat	1	2	3	4	5

Bahagian C: Amalan Keselamatan Pihak Penyelia

13. Penyelia saya bertindak terhadap cadangan keselamatan oleh pekerja	1	2	3	4	5
14. Penyelia saya menggalakkan tingkah laku yang selamat	1	2	3	4	5
15. Penyelia saya mengambil berat tentang keselamatan pekerja	1	2	3	4	5
16. Penyelia saya memuji tingkah laku kerja yang selamat	1	2	3	4	5
17. Penyelia saya membincangkan isu-isu keselamatan dengan orang lain	1	2	3	4	5
18. Penyelia saya memastikan pekerja dimaklumkan mengenai peraturan keselamatan	1	2	3	4	5
19. Penyelia saya melibatkan pekerja dalam menetapkan matlamat keselamatan	1	2	3	4	5
20. Penyelia saya menguatkuasakan peraturan keselamatan	1	2	3	4	5
21. Penyelia saya sering menyebut bahawa keselamatan adalah sangat penting dengan kecekapan	1	2	3	4	5

Bahagian D: Sikap Keselamatan

22. Penggunaan peralatan keselamatan tidak boleh mengurangkan kecederaan dan kemalangan	1	2	3	4	5
23. Prosedur operasi yang selamat tidak boleh mengurangkan kemalangan	1	2	3	4	5
24. Saya melanggar peraturan keselamatan semasa di bawah tekanan kerja	1	2	3	4	5
25. Saya mengabaikan peraturan keselamatan untuk menyelesaikan kerja yang dilakukan	1	2	3	4	5
26. Kemalangan tidak dapat dielakkan ataupun keselamatan pekerja tidak dapat dilindungi	1	2	3	4	5
27. Saya akan mengabaikan prosedur berkerja yang selama tuntut kemudahan saya	1	2	3	4	5
28. Saya menilaikan kemalangan sebagai nasib malang	1	2	3	4	5
29. Saya tidak suka menerima cadangan keselamatan daripada orang lain	1	2	3	4	5

Part E: Latihan Keselamatan

30. Program-program latihan keselamatan membantu mengelakkan kemalangan di hospital saya	1	2	3	4	5
31. Program-program latihan keselamatan di hospital saya adalah berguna	1	2	3	4	5
32. Program-program latihan keselamatan di hospital saya adalah berguna	1	2	3	4	5
33. Program-program latihan keselamatan di hospital saya berkaitan dengan kerja saya	1	2	3	4	5
34. Program-program latihan keselamatan di hospital saya adalah jelas	1	2	3	4	5
35. Program-program latihan keselamatan di hospital saya adalah baik	1	2	3	4	5
36. Program-program latihan keselamatan di hospital saya sangat berkesan	1	2	3	4	5

Bahagian F: Keselamatan Tugas

37. Kerja di unit/tempat kerja tidak selamat	1	2	3	4	5
38. Kerja di unit/tempat kerja adalah berisiko	1	2	3	4	5
39. Berkerja di unit/tempat kerja seseorang boleh tercedera dengan mudah	1	2	3	4	5
40. Kerja di unit/tempat kerja tidak sihat	1	2	3	4	5
41. Kerja di unit/tempat kerja adalah berbahaya	1	2	3	4	5
42. Kerja di unit/tempat kerja menakutkan	1	2	3	4	5

Bahagian G: Amalan Keselamatan Rakan Sekerja

43. Rakan sekerja saya mengalakkan orang lain berada dalam keadaan selamat	1	2	3	4	5
44. Rakan sekerja saya mengambil berat tentang keselamatan kerja	1	2	3	4	5
45. Rakan sekerja saya mengambil berat tentang keselamatan orang lain	1	2	3	4	5
46. Rakan sekerja saya ikut peraturan keselamatan	1	2	3	4	5
47. Rakan sekerja saya memastikan Kawasan kerja selamat	1	2	3	4	5

Bahagian H: Pematuhan Keselamatan

48. Saya sentiasa ada kesedaran keselamatan di tempat kerja	1	2	3	4	5
49. Saya mematuhi kepada peraturan keselamatan dan prosedur operasi standard	1	2	3	4	5
50. Saya tidak mengabaikan keselamatan, walaupun dalam keadaan tergesa-gesa	1	2	3	4	5
51. Saya memakai peralatan perlindungan peribadi semasa bekerja	1	2	3	4	5
52. Saya yakin dengan kebolehan saya untuk bekerja dengan selamat	1	2	3	4	5

Bahagian I: Penyertaan Keselamatan

53. Saya aktif melibatkan diri dalam menetapkan matlamat keselamatan	1	2	3	4	5
54. Saya secara aktif mempromosi cadangan-cadangan penambahbaikan keselamatan	1	2	3	4	5
55. Saya secara aktif mengambil bahagian dalam mesyuarat keselamatan	1	2	3	4	5
56. Saya secara aktif mengambil bahagian atau membantu rakan sekerja dengan isu yang berkaitan dengan keselamatan semasa taklimat keselamatan	1	2	3	4	5
57. Saya secara aktif mengambil bahagian dalam membuat keputusan keselamatan dengan penyelia saya	1	2	3	4	5



Terima kasih untuk meluangkan masa anda.

APPENDIX B



UNIVERSITY UTARA MALAYSIA

KUALA LUMPUR CAMPUS

SCHOOL OF BUSINESS

PROGRAM : MASTER OF SCIENCE
(OCCUPATIONAL SAFETY AND HEALTH
MANAGEMENT)

TITLE : THE INFLUENCE OF SAFETY CLIMATE ON
SAFETY PERFORMANCE IN SERDANG HOSPITAL.

LECTURER : DR MUNAUWAR BIN MUSTAFA

STUDENT NAME : MUTHURAMAN A/L SELLATHURAI PATHAR

MATRIC NUMBER : 816630

**QUESTIONNAIRE ON THE INFLUENCE OF SAFETY CLIMATE ON
SAFETY PERFORMANCE IN SERDANG HOSPITAL**

The Questionnaire contains nine (9) parts:

- Respondent Profile and Consent Letter**
- Part A: Demography of the Respondent**
- Part B: Management Safety Practices**
- Part C: Supervisory Safety Practices**
- Part D: Safety Attitude**
- Part E: Safety Training**
- Part F: Job Safety**
- Part G: Co- Workers Safety Practice**
- Part H: Safety Compliance**
- Part I: Safety Participation**

LETTER OF CONSENT

This Questionnaire contains nine parts and the objective of this study of the influence on safety climate and safety performance in Occupational Safety and Health (OSH) in hospital.

I, hereby give consent to participate in this questionnaire.

I understand the information given will be confidential at all time and it only be use research purpose only.

This survey asks for your opinions about safety culture issues in your hospital and will take about 10 to 15 minutes to complete.

Respondent Signature: _____

IC No. : _____

Date : _____

RESEARCH ON THE INFLUENCE OF SAFETY CLIMATE ON SAFETY PERFORMANCE AMONG WORKERS IN HOSPITAL SERDANG

Part A: Demography of the Respondent

Instructions: Please tick (X) on the related column.

- 1) Age 20-30 years old 41-50 years old
 31-40 years old > 50 years old
- 2) Gender Male Female
- 3) Nationality Malaysian Non-Malaysian
- 4) Position Doctors Safety Officer/Supervisor
 Nurses Others
- 5) Department/Unit

Part B: Management Safety Practices

Instructions: Please rate how much you personally agree or disagree with these statements. Please circle the correct answer.

1	2	3	4	5
Strongly disagree	Disagree	Unsure	Agree	Strongly agree

1. My hospital responds quickly to safety concerns	1	2	3	4	5
2. My hospital provides safety information	1	2	3	4	5
3. My hospital has a regular job safety meeting	1	2	3	4	5
4. My hospital investigates safety problems quickly	1	2	3	4	5
5. My hospital conducts frequent safety inspections	1	2	3	4	5

6. My hospital provides enough safety equipment	1	2	3	4	5
7. My hospital keeps workers informed of the hazards	1	2	3	4	5
8. My hospital emphasizes safe working conditions	1	2	3	4	5
9. My hospital provides enough safety training programmes	1	2	3	4	5
10. My hospital provides good safety equipment	1	2	3	4	5
11. My hospital label warning signs for hazardous substances	1	2	3	4	5
12. My hospital rewards safe workers	1	2	3	4	5

Part C: Supervisory Safety Practices

13. My supervisors act on safety suggestions by the workers	1	2	3	4	5
14. My supervisors encourage safe behaviours	1	2	3	4	5
15. My supervisors care about the worker safety	1	2	3	4	5
16. My supervisors praise safe work behaviour	1	2	3	4	5
17. My supervisors discuss safety issues with others	1	2	3	4	5
18. My supervisors keep the workers informed of safety rules	1	2	3	4	5
19. My supervisors involve the workers in setting safety goals	1	2	3	4	5
20. My supervisors enforce safety rules	1	2	3	4	5
21. My supervisors frequently mention safety is as important as efficiency	1	2	3	4	5

Part D: Safety Attitude

22. The use of safety equipment cannot reduce injuries and accidents	1	2	3	4	5
23. Safe operating procedures cannot reduce accidents	1	2	3	4	5
24. I break safety rules when under job pressure	1	2	3	4	5
25. I ignore safety regulations to get the job done	1	2	3	4	5
26. Accidents cannot be avoided nor workers protected in advance	1	2	3	4	5
27. I will ignore safe working procedures for convenience	1	2	3	4	5
28. I put accidents down to bad luck	1	2	3	4	5
29. I don't like to accept safety suggestions from others	1	2	3	4	5

Part E: Safety Training

30. The safety training programs in my hospital help prevent accidents	1	2	3	4	5
31. The safety training programs in my hospital are useful	1	2	3	4	5
32. The safety training programs in my hospital are worthwhile	1	2	3	4	5
33. The safety training programs in my hospital apply to my job	1	2	3	4	5
34. The safety training programs in my hospital are clear	1	2	3	4	5
35. The safety training programs in my hospital are good	1	2	3	4	5
36. The safety training programs in my hospital do the work	1	2	3	4	5

Part F: Job Safety

37. Work area/unit in this hospital is unsafe	1	2	3	4	5
38. Work area/unit in this hospital is risky	1	2	3	4	5
39. Working area/unit in this hospital can easily get hurt	1	2	3	4	5
40. Work area/unit in this hospital is unhealthy	1	2	3	4	5
41. Work area/unit in this hospital is dangerous	1	2	3	4	5
42. Work area/unit in this hospital is scary	1	2	3	4	5

Part G: Co- Workers Safety Practice

43. My co-workers encourage others to be safe	1	2	3	4	5
44. My co-workers care about work safety	1	2	3	4	5
45. My co-workers care about others' safety	1	2	3	4	5
46. My co-workers follow safety rules	1	2	3	4	5
47. My co-workers keep the work area safe	1	2	3	4	5

Part H: Safety Compliance

48. I maintain safety awareness at work	1	2	3	4	5
49. I comply with safety rules and standard operational procedure	1	2	3	4	5
50. I do not neglect safety, even when in a rush.	1	2	3	4	5
51. I wear personal protective equipment at work	1	2	3	4	5
52. I am confident in my ability to work safely	1	2	3	4	5

Part I: Safety Participation

53. I actively participate in setting safety goals	1	2	3	4	5
54. I actively promote safety improvement suggestions	1	2	3	4	5
55. I actively participate in safety meeting	1	2	3	4	5
56. I actively participate or helping coworkers with safety related issues during safety briefing	1	2	3	4	5
57. I actively participate in safety decision making with my supervisor.	1	2	3	4	5



Thank you for your time.

