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**SAFETY MANAGEMENT PRACTICES AND SAFETY BEHAVIOR AMONG  
ASSISSTANT MEDICAL OFFICER IN KELANTAN PUBLIC HOSPITAL**

**By**



**MUHAMMAD NAIM BIN SULAIMAN**

**UUM**  
**Universiti Utara Malaysia**

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## ABSTRACT

The present study investigated the relationship between safety management practices and safety behavior of assistant medical officer (AMO) in Kelantan public hospitals. The component of safety management practices are management commitment, safety training, safety communication and feedback, employees involvement, safety rules and procedures and safety promotion policies, while safety behavior component are safety compliance and safety participation. The questionnaire was consisted of 47 items adapted from the previous studies. The questionnaire was distributed to 250 AMOs in Kelantan public hospital for data collection and with 205 feedback, data were analyzed using SPSS version 26.0. The findings showed that management commitment, workers involvement and safety rules and procedure positively and significantly affected safety behavior where as safety training, safety communication and feedback, and safety promotion policies does not significantly influencing safety behavior. Finally, implications are discussed and recommendations for future researchers.

**Keywords:** Safety management practices, Safety behavior, Assistant Medical Officer (AMO), Kelantan public hospitals.

## ABSTRAK

Kajian ini meneliti hubungan antara amalan pengurusan keselamatan dan tingkah laku keselamatan penolong pegawai perubatan (PPP) di hospital awam di Negeri Kelantan. Komponen amalan pengurusan keselamatan adalah komitmen pengurusan, latihan keselamatan, komunikasi dan maklum balas keselamatan, penglibatan pekerja, peraturan dan prosedur keselamatan dan dasar promosi keselamatan, sementara komponen tingkah laku keselamatan adalah kepatuhan keselamatan dan penglibatan keselamatan. Soalan di dalam borang kaji selidik ini terdiri daripada 47 item yang disesuaikan daripada kajian sebelumnya. Soal selidik diedarkan kepada 250 PPP di hospital awam di Negeri Kelantan untuk pengumpulan data, dengan 205 maklum balas data dianalisis menggunakan SPSS versi 26.0. Hasil kajian menunjukkan bahawa komitmen pengurusan, keterlibatan pekerja dan peraturan keselamatan dan prosedur mempengaruhi dan mempengaruhi keselamatan secara positif di mana latihan keselamatan, komunikasi keselamatan dan maklum balas, dan kebijakan promosi keselamatan tidak mempengaruhi tingkah laku keselamatan secara signifikan. Akhirnya, implikasi dibincangkan dan cadangan untuk penyelidik masa depan.

**Kata Kunci:** Amalan pengurusan keselamatan, Gelagat keselamatan, Penolong pegawai perubatan (PPP), Hospital Awam Negeri Kelantan.

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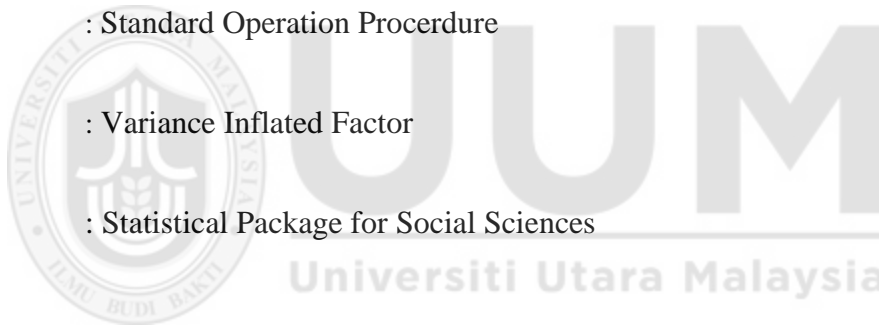
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## LIST OF ABBREVIATIONS

- AMO** : Asisstant Medical Officer
- DOSH** : Department of Occupational Safety and Health
- OSH** : Occupational Safety and Health
- NIOSH** : National Institute Occupational Safety and Health
- COVID-19** : Coronavirus disease-2019
- PPE** : Personal Protective Equipment
- SOP** : Standard Operation Procerdure
- VIF** : Variance Inflated Factor
- SPSS** : Statistical Package for Social Sciences



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**Appendix A** Questionnair Form

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## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Introduction**

In this chapter outlines the background of the study conducted, problem statement discussed in this study, highlighted the research questions involved, formulate research objectives, scope and significant of the study and the definition of key term used in this paper. On the last part of this chapter, a brief description on the arrangement for the rest of the chapters presented in this project paper and also the summary of chapter one.

#### **1.2 Background of the Study**

The Occupational Safety and Health (OSH) management program has been developed since the era of industrial revolutionary. OSH was a discipline addressing the employment related injury and disease prevention as well as the programmed for promotion, protection and improvement of wellbeing of workers to accieved the goal in creating safe work environment. Its also participating in ensuring safety, health and welfare of the workers and also any person in the workplace environment. According to (Dessler, 2011), occupational safety and health management setup an availability of the jurisdictive

boundaries to ensure the safety, healthiness and also the welfare of all personnel in workplace and to protect others in contradiction of hazards to safety or wellbeing in connection with the activities related to work.

The area of management regarding occupational safety and health in Malaysia was being governed by the Department of Occupational Safety and Health (DOSH). It's one of section under the Ministry of Human Resources. DOSH were accountable for enforcement and ensuring the safety, wellbeing and also the welfare of workforce at workplace as well as preventing other person in workplace from the risk of safety and health hazards that were rising from the dangerous happening in the sectors which include manufacturings, mining and quarrying, construction, utilities-gas, electricity, hotels and restaurant, agriculture, forestry and fishing and among others. Stand as a government agency, DOSH was in authority for the supervision and enforcement for implementation of regulations related to occupational safety and health for the whole country and producing the safer and healthier work behavior that contributes towards improving the quality of working environment.

Whereas the National Institute Occupational Safety and Health (NIOSH) was section functioning as the entity that answerable in organizing training, provided consultation services, examinations and certificates for safety and health matters.

Healthcare services in Malaysia has started a long way since before independence. Reported in Malaya history, since year of 1880, Taiping Hospital, was one of the first hospitals in the nation state built and known as the Yeng Wah Hospital. Currently there are 15 State Health Departments including the Federal Territory of Kuala Lumpur and Federal

Territory of Labuan, 140 Government hospitals all over Malaysia, 4 specific institutional for patient care; National Cancer Institute, Respiratory Medical Institute, Sarawak Heart Center and National Center for Leprosy Control. There are also 167 District Health Offices that manages primary health care to government patients with 2840 health clinics providing services. According to (MOH Malaysia, 2016) statistics, there are 264886 health professionals performing tasks in the government and private sectors.

Healthcare providers were a group of people with the job description and purpose was to promote and improve the healthiness of their surrounding communities. Together, with all the healthcare provider diversity, form the global health workforce in providing healthcare services (World Health Organization, 2006). Thus, the healthcare services was a service by those group who delivered cares and treat the sick and injured person whether directly as doctors and nurses or indirectly as aiders, ambulance drivers, laboratory technicians, radiologist, or even if they work as medical waste handlers. In Malaysia there are an extra designation for healthcare worker group, they are known as assistant medical officer (AMO).

The profession as assistant medical officer was one among the earliest healthcare profession in this country and in according to history it was extends beyond 230 years. At the beginning, it was identified as the Apothecaries that been introduced by British Malaya in Penang and functioning as as sub-assistant surgeon or recognized as Dressar. In the 19th century, the profession has undergone a series of transformations following its growing role in conformity with the position of the profession at that time as Hospital Assistant 1963, then they known as Medical Assistant in 1985 and currently they been acknowledged as Assistant Medical Officer (AMO) started March 20, 2007. Scope of work as assistant

medical officer very broad according to sub expertise. In the emergency and trauma departments AMOs main tasks are from initial screening, basic care and even carry out advanced procedures such as intubation, ventilator setting and so on with permission from the specialist and after undergone advanced training. They were also act as leader of pre-hospital care team and provided emergency care on site. Thus, AMOs prone to occupational injuries and accidents due to their high risk nature of work activities. They are an integral part of the health care services and are responsible for delivering high quality patient care in most initial health care settings.

The safety of employees was a serious issues in most of the high risk organizations. Hospital also can be considered as high risk organization since the nature of environment were vulnerable for biological hazard and also due to the uprising the financial rate in the term of reduce quality and productivity or costly lawsuit subsequent from the medicolegal incidents, and also people alertness in view of mortality and injuries claimed ((Ndejjo et al., 2015). In Healthcare facilities, some of the commonest work-related hazards categories that have been recognized within the hospital and healthcare environment include disease such as contact dermatitis and communicable diseases, injuries involving needle punctures or sharp equipment an also thermal burns, hazardous material that can be toxic or chemical substances, biological hazard, ergonomic issues and others. The consequences of all these occupational hazards, might lead to work related accident and considerable as a challenge for hospitals in view of early retirement skillful workforce, lost of skillful and expert workers, lead to absenteeism, cannot provide full clinical function and among others related. Regardless of the economical involvement as well as significant social issues

suggestively affect the safety in healthcare setting or in hospital, these feature still being the minimal attention from management scholars (Institute of Medicine, 2001).

### **1.2.1 Public hospital in Kelantan**

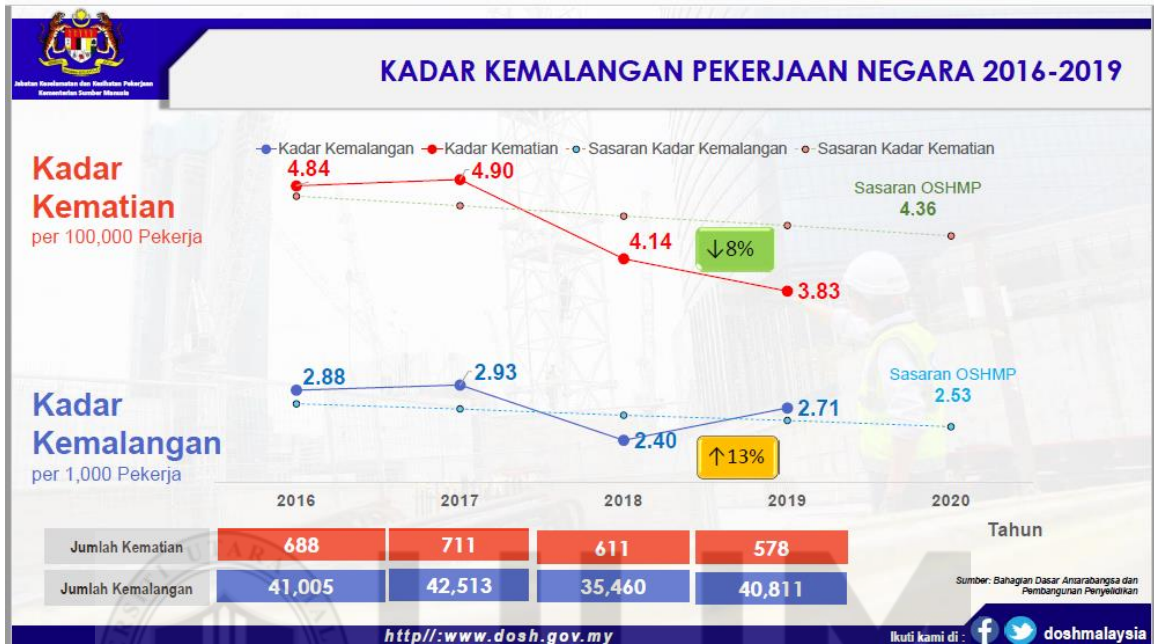
In Kelantan state, there were 9 public hospital, with single general hospital which was Hospital Raja Perempuan Zainab II (HRPZ II), Hospital Tanah Merah and Hospital Kuala Krai that currently name as Hospital Sultan Ismail Petra both were major specialist hospital, and the overall six district hospital wick stated at every district in Kelantan except for Hospital Bachok that just still in construction process. There were Hospital Tumpat, Hospital Pasir Mas, Hospital Tengku Anis in Pasir Puteh, Hospital Machang, Hospital Jeli and the last was Hospital Gua Musang. Each and every hospital in Kelantan have a group of AMOs especially in Emergency Department and ambulan services.

### **1.3 Problem Statement**

The International Labour Organization (ILO) reported that more than 300 million workers experience nonfatal occupational injuries of work-related illness annually and more than 2.3 million worker dies per year due to occupational hazards in the workplace (International Labour Organization, 2011).

Occupational safety and health have become important issues nowadays because of the increasing number of work-related incidents which may lead to morbidity and mortality of the involved employees. That can be seen base on the statistics of national occupational

accidents rate in Malaysia and the statistic of occupational accident classified according to sectors prepared from 2015 to 2019.



**Figure 1.1**  
National Employment Accident Rate 2016-2019  
(Kadar Kemalangan Pekerjaan Negara 2016-2019)

Source : Yearly statistical report of Department of Occupational Safety and Health Malaysia.

Based on the above figured 1.1, demonstrate the statistic of accident occurred since 2016 until 2019 with mortality rate for every years respectively. In the years of 2016, there were 41,005 accident cases with 688 mortality, for 2017 shows an increasing number of cases in both accident 42,513 and mortality 711. The number of cases slightly reduce in year 2018 with 35, 460 accident and 611 mortality. The number of accident increasing again in year 2019 with 40,811 cases, but the number of mortality cases shows reducing to 578.

**Table 1.1**

*Number of Accident Classified According To Sectors 2015-2019*  
*(Jumlah Kemalangan Mengikut Sektor Tahun 2015-2019)*

Jumlah Kemalangan Mengikut Sektor Tahun 2015-2019

Bil	Jumlah Kemalangan	2015	2016	2017	2018	2019
i	Pembuatan/Pengilangan	11,822	11,943	12,982	11,555	12,704
ii	Perlombongan dan Pengkuarian	249	238	282	182	203
iii	Pembinaan	3,905	4,269	4,266	3,911	4,863
iv	Pertanian, Perhutanan, dan Perikanan	2,454	2,359	2,589	2,518	2,730
v	Kemudahan (Elektrik, Gas, Air dan Kebersihan)	569	620	656	484	713
vi	Pengangkutan, Penyimpanan dan Komunikasi	2,234	2,038	2,211	1,530	1,954
vii	Perdagangan Borong dan Runcit	5,217	5,377	5,259	3,889	4,372
viii	Hotel dan Restoran	975	941	1,081	743	949
ix	Kewangan, Insurans, Hartanah, dan Perniagaan	3,340	3,677	3,738	1,412	1,580
x	Perkhidmatan	7,988	9,543	9,449	9,236	10,743
<b>Jumlah</b>		<b>38,753</b>	<b>41,005</b>	<b>42,513</b>	<b>35,460</b>	<b>40,811</b>

Source : Yearly statistical report of Department of Occupational Safety and Health Malaysia.

According to the statistic, the highest numbers of occupational accident from 2015 until 2019 with accident numbers consecutively always above 10,000 cases was occurs in manufacturing sector, and the lowest numbers of accident happened was involving the sector of mining and quarrying with accident numbers consecutively always below 500 cases for 5 years.

Accidents at work are unexpected, accident prevention programs should be taken seriously by employers in dealing with and preventing the occurrence of unforeseen accidents (Geotsch, 2015). The role of employers and employees is equally important in dealing with unforeseen accidents. Employees especially need to report the danger to the employer so that corrective and corrective action can be taken.

Occupational safety and health issues became an important issues in Ministry of Health after the fire incident at Hospital Sultanah Ismail with involving death to the staff and the patient (Farhaan & Ahmad, 2016). Thus, can be conclude the important of safety training conducted to trained the workers how to deal with fire safety, familiarizes them with the evacuation procedures and to empowering the function of OSH unit in hospital setting. In current Coronavirus disease-2019 (COVID-1 global pandemic issues, as the front liner healthcare workers were at the most vulnerable situation since they have to deal directly with the positive patient. According to news straits times online, there 1,359 healthcare staff infected since september 2020. Its involving large number of staffnurses, medical officers, assistant medical officers, health attendant, and also house officers.

Formal interview was conducted on September 2020 with the assistant medical officer unit in Kelantan State Health Department to identify existing safety issues among AMOs. The result of the interview conclude that there some of safety and health issues related to AMOs in public hospital in Kelantan such as needle stick injuries, ergonomic issues, compliance to usage of personel protective equipment (PPE) and others. According to the officer number of verbal warning given to AMOs those who are not compliance to PPE usage.

The safety study been conducted toward among assistant medical officer were limited, therefore they were chosen as the subject in this study as they were exposed and vulnarable to a variety of occupational hazards in the hospital as well as out of hospital setting in providing healthcare services. Thus, this study focus on evaluating the type and strength of relationship between ‘Safety Management Practices and Safety Behavior’ among AMOs. Through carrying out this study, the understanding on the importance of safety

performance and AMO's perception towards safety practices in the workplace can be measure and intended for improvement.

#### **1.4 Research Questions**

The research questions are meant to give a richer view base on the correlation of safety management practices towards safety behavior in Kelantan public hospitals. Regarding the independent variables and dependent variables, the research questions (RQ) that have been highlighted were:

- 1.4.1 What was the relationship between management commitment and safety behavior among assistant medical officer in Kelantan public hospitals?
- 1.4.2 What was the relationship between safety training and safety behavior among assistant medical officer in Kelantan public hospitals?
- 1.4.3 What was the relationship between workers involvement and safety behavior among assistant medical officer in Kelantan public hospitals?
- 1.4.4 What was the relationship between 'safety communication and feedback' with behavior among assistant medical officer in Kelantan public hospitals?
- 1.4.5 What was the relationship between 'safety rules and procedure' with safety behavior among assistant medical officer in Kelantan public hospitals?
- 1.4.6 What was the relationship between 'safety promotion policies' and safety behavior among assistant medical officer in Kelantan public hospitals?

## **1.5 Research Objectives**

The objective of this research was to know the safety management practices among assistant medical officer in Kelantan public hospital and its correlations towards safety behavior. Thus, the following research objectives were formulated:

- 1.5.1 Identifying the relationship between management commitment and safety behavior among assistant medical officer in Kelantan public hospitals.
- 1.5.2 Examine the relationship between safety training and safety behavior among assistant medical officer in Kelantan public hospitals.
- 1.5.3 Recognizing the relationship between workers involvement and safety behavior among assistant medical officer in Kelantan public hospitals.
- 1.5.4 Distinguishing the relationship between 'safety communication and feedback' with behavior among assistant medical officer in Kelantan public hospitals.
- 1.5.5 Detcting the relationship between 'safety rules and procedure' with safety behavior among assistant medical officer in Kelantan public hospitals.
- 1.5.6 Recognizing the relationship between safety promotion policies with safety behavior among assistant medical officer in Kelantan public hospitals.

## **1.6 Scope of the Study**

This project paper have been conducted in view to examine the influences of the safety management practices component toward safety behavior. The targeted respondent of this project paper is assistant medical officers in government hospital in Kelantan. In order to collect the data, researcher used questionnaire adopted from previous study by (Vinodkumar & Bhasi, 2010).

The AMO's were chosen as the subject population for this study due to the following reasons. AMO's are the largest group of health care providers who act as guardians to protect patients' safety as a front-line since they are the main group who provide pre-hospitalcare services and most of AMO's are working in emergency department. They thrive to provide the highest quality of patient care and with their expert knowledge and practical experience, establish a healthy and safe atmosphere for their patients. Thus the participant in this study selected from permanent AMOs who were working in public hospital in Kelantan.

## **1.7 Significant of the Study**

The finding from this study on six dimension in safety management practices would help the organization to understand the AMOs perception regarding management commitment on safety issues, effectiveness of safety training, the important of workers involvement in safety, 'safety communication and feedback' in workplace, enforcement of 'safety rules and procedure' and also existance of safety promotion policies that currently in practice at Kelantan public hospital and to determined all those six component influence toward safety

behavior. The results of the study comprehensively highlighted safety issues in workplace environment and suggested practical solution for safety improvement.

Assistant medical officer in the healthcare services are one of the most at risk healthcare personnel toward workplace hazards as they are actively performing bedside procedures rather than other healthcare profession especially in Emergency Department. Patient's safety is always a concern in health care setting and as assistant medical officer, they serve as a communicator and plays an important part in guarantee patients safety as well as their safety and workplace safety. Besides, finding from this study also provide proactive information about safety management related issues arise among employees and areas of remedial action and improvement plans required for continual improvement, better performance and future development in safety management at government hospital at Kelantan.

This research has important contribution to a body of knowledge on safety in healthcare working environment for improvement of health services. Its also recommend the ideas that can be the foundation for exploring the new factors on safety practices. Beside that, the findings of the study would assist other researchers in healthcare sector to improve policies and practices related to safety issues.

## **1.8 Definition of Key Terms**

**Safety Management Practices** referring to “policies, procedures, activities and strategies followed or implemented by the management of an organization targeting safety of their employee” (Vinodkumar & Bhasi, 2010).

**Management Commitment** can be defined as “organization’s management work together and take responsibilities to make safety and health a priority in the organization” (Shadab, Balaji & Narendra, 2016).

**Safety Training** refer to the “activities of instructing workers in hazard recognition and control measure, using available methods for protection (worker training), and educating workers in the field of occupational safety and health administration on how to deal with unforeseen problems or potential hazards in the workplace (worker education)” (Cohen and Colligen, 1998).

**Safety Communication and Feedback** refers to “the provision of information and data on the safety level of an organization to identify the degrees of risk that result in accidents at the workplace.” (Bentley & Haslam, 2001).

**Employees’ Involvement** refers to “a behavioral oriented technique that involves individuals or groups in the upward communication flow and decision making processes within the organization.” (Vredenburg, 2002).

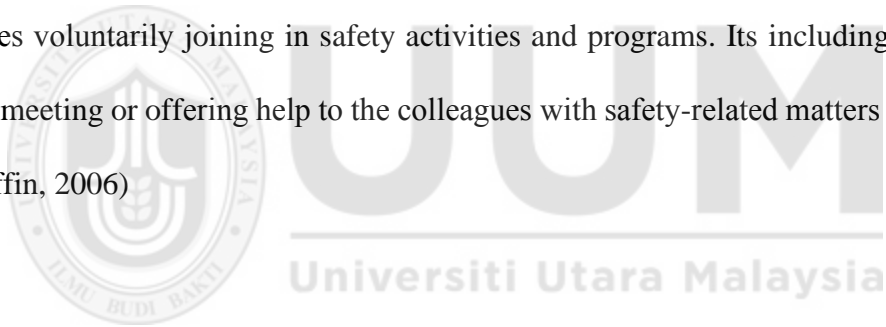
**Safety Rules and Procedures** refers to “the degree to which an organization creates a clear mission, responsibilities, and goals, set up of standards of behavior for employees, and establish a safety system to correct worker’s safety behavior.” ( Lu & Yang, 2011)

**Safety Promotion Policies** refers to “standards, rules and procedures connected with the compensation and allocation of benefits to employees for a job well done and motivation or anything given in recognition of effort or achievements” (Mashi, 2014).

**Safety behavior** define as the behavior that support safety and actions that required to cultivated among the workers in accordingly to achieve safety and healt obligation in order to avoid work related accident or injury (Zin & Ismail, 2012a).

**Safety Compliance** defined as “generally mandated” behaviors or main activities that was essential performed by an individual while maintaining safety of the work environment. These behaviors involved in obeying to the standard operation procerdure (SOP) in workplace and comply to usage of Personel Protective Equipment (PPE) (Andrew Neal & Griffin, 2006).

**Safety Participation** defined as behaviors “frequently voluntary”, these safety behaviors includes voluntarily joining in safety activities and programs. Its including participate in safety meeting or offering help to the colleagues with safety-related matters (Andrew Neal & Griffin, 2006)



## **1.9 Arrangement of The Thesis**

The whole project paper consist of five chapters. The first chapter presents an introduction and covers the contextual background of the study, the problems statement, research question for this study, research objective, significant of the study conducted, and definition of key term used. Second chapter covers about the literature review and describe the overview of safety management practices and safety behavior. Third chapter discussed on the research framework in this study, hypothesis created, type of research design, and operational definition for each variable, sampling method, pilot test, data collection procedure and technique of data analysis. The fourth chapter all about the analysis and

findings of the project paper and for the last was chapter five represented the discussion and recommendations.

### **1.10 Summary**

This chapter has focuses on an overall view of the present study. It discussed the importance and necessity to study safety behavior in an organizations. This chapter also highlighted definition of every safety management practices which consisting of six component (management commitment, safety training, workers involvement, 'safety communication and feedback', 'safety rules and procedures' and lastly the safety promotion policies) that have been examined as contribution for safety behavior. However empirical research on the relationship was limited among healthcare systems. To fill in the gap, the study been conducted to the a group of healthcare workers under Ministry of Health and focusing on the profession assistant medical officers. The next chapter provided a systematic review of all the main were proposed in the present study.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

The second chapter discussed on the literature review deliberates about safety behaviors that focused on safety compliance and safety participation as dependent variable and the independent variable consist of six domain of safety management practices which were management commitment, safety training, workers involvement, 'safety communication and feedback', 'safety rules and procedures' and lastly the safety promotion policies. The empirical research elaborates the relationship between safety management practices and safety behavior and other related theories.

#### 2.2 Safety Behavior

Safety outcome have been measured by the early researchers through various of objectives and indicators. Its included numbers of accidents occur in workplace, fatalities rate, permanent disability outcome post injuries, occurrence of temporary disability or morbidity, employees compensation and etcetera (Moore & Viscusi 1989). Later, subjective indicators was preferred by the researcher for measurement of safety behavior within the study of safety topics (Cooper & Phillips, 2004; Dea & Flin, 2001; A. Neal, Griffin, & Hart, 2000).

Safety behavior define as the behavior that support safety and actions that required to cultivated among the workers in accordingly to achieve safety and healt obligation in order to avoid work related accident or injury (Zin & Ismail 2012). The term behavior itself can be define as everything an individual does that were noticeable, observable and measurable. (Vijaykumar, 2007).

According to Vinodkumar & Bhasi (2010) although classically the measurement of safety performance mostly rely to the data set base on the accident and injury reported. The safety related behaviors such as safety compliance and safety participation been considered part of components for safety performance measurement. Hagan et al (2001) stated safety compliance characterize by safety behavior of the workers toward their manners in helping for improment of safety and health. While the safety participation, describe as their behavior in term of their contribute in increasing the safety and health of their partner in workplace and at once support the organization's goal and objectives. In essence, both safety compliance and safety participation were the definite behaviors associated to safety which were can be observed in workplace (A. Neal et al., 2000).

As in this study, the safety behavior has four facets namely; safety knowledge, safety motivations, safety participation and safety compliance. Campbell (1993) defines safety knowledge and safety motivation as determinants of safety performance. These determining factor of performance characterize the proximal causes of variability in

performance. According to Neal et al., (2000), the element of performance describe the actual behaviors of an individuals shows at workplace. Safety compliance describe the main action have been caring out by a workers, while maintaining the safety of the workplace were at the hight concern. Safety participation describes the attitudes that might not directly related to involveing in safety workplace, but they do indirectly influence others to support the safety such as voluntary safety activities or attending safety meetings.

### **2.3 Safety Management Practices**

Management practices was the most effective methods or techniques for achieving organizational goals through optimizing utilization of the organizations' resources (Dorji & Hadikusumo, 2006). Similar definition was provided by Skjerve (2008), who maintains that management practices involved the effective methods or techniques designed to achieve the goals of the organization. The aim of management practices was to develop, monitoring, and evaluating workflow and to help employees efficiently perform their jobs and eradicate labor problems.

Safety management practices were the commitment of by management level in producing safety policies, work strategies, rules and procedures and also the all the implementation action by the management of an organization and aiming for safety of their workers (Vinodkumar & Bhasi, 2010). Safety management practices were mechanism that were combined within the organization and design to measure, predict and handling the existing hazards that might affecting employees wellbeing and safety in the workplace.

In the present study, safety management practices consist of six dimensions, which were management commitment, safety training, workers involvement, ‘safety communication and feedback’, ‘safety rules and procedures’ and lastly the safety promotion policies. All of these dimensions were considered as pertinent for improvement of the employees capabilities in confront to workplace accidents and injuries and enhancing the safety performance (Ali, Azimah Chew Abdullah, & Subramaniam, 2009; Vinodkumar & Bhasi, 2010; Vredenburg, 2008). Thus, all the following section empirically discussing on these six management practices.

### **2.3.1 Management Commitment**

Management commitment was defined as administration’s insistence on a commitment to safety programs in order to support the prevention of occupational accidents through employee training and management participation in safety committees and follow-up safety designs of work (Arboleda et al., 2003). Management commitment considered as a main and core element in safety management practice. The commitment from the management site of an organization, where its plays the most crucial part in any safety program. It has been discussed and agreed to be the foremost significant factors influence safety by numerous researchers in work-related literature (Zin & Ismail, 2012). Choudry, Fang & Ahmad, Ahmed (2008) propose that management commitment to safety was a vital influence factor to achieve the safety goal programs of an organization’s. It plays an

important rule in organizations to shape, improve and enhance workplace attitudes and behavior.

Management commitment influence on safety behavior have been reported in several studies conducted across multiple various work environment and settings (Dedobbeleer & Béland, 1991; Mearns, Whitaker, & Flin, 2003; Andrew Neal & Griffin, 2006; Vinodkumar & Bhasi, 2010; Zohar, 1980). The top management in organizations must actively take a step in advance of the association and employees efforts in achieving the organization targets by exhibiting their seriousness and concern of the safety in workplace. Employer would demonstrate their commitment and influence workers toward safety behavior by ensuring safety equipment and requirement were fulfilled and that shows to every workers in the association was certain and clear about management commitment on safety and health responsibility (Fernando et al., 2008).

### **2.3.2 Safety Training**

Training was very important for employees to remain updated with new knowledge, skill and instrument related to their occupation. Training was one of the component that contributes the most in explaining safety management practices geared toward the improvement of the performance of an employee (Poulston, 2008). Training generally refer to an activities to improve knowledge, skill and competencies of a workers through the teaching and coaching on specific knowledge and skill by certified practitioner or trainers expert (Cooper, 2000; Ruwan, 2007).

Based on the context of safety and health, type of training depends on the nature of work, safety training importance where it plays an important and significant roles in completion of the specific task, especially during new procedure or new technologies being introduced. Safety training can be defined as knowledge of safety given to workers as a tools for them to conducting safe work practice and avoiding dangers or work related accident, Abdullah et al., (2009). On a similar study by, Barling, (2001) supported that training makes it possible for workers to acquire greater competencies to enable them having control at workplace, being competence can lead them to perform the job safely. Additionally, practical trainings helps reduce hazards and improves the employees' ability to address risk or uncertainties.

### **2.3.3 Safety Communication and Feedback**

Communication and feedback were main tool to assess the effectiveness on the delivery of information in an organization. One form of the communication that can be applied is a direct two-way communication. Two-way communication will be a more effective by active involvement of both from upper level to the bottom and vice versa in order to sharing the information and provision of data on the safety level of organizations. Direct and indirect communication is an important culture in working environment. Conveying or exchanging of safety information whether by writing, speaking or other means was principal in an organization (Mashi 2014). Research conducted by (Cheyne & Cox, 2000), Mearns et al., (2003) and Vredenburg, (2008) have shown safety performance was

influences by the capacity and level of communication within organization . Good communications between management and employees leads to trust and faithfulness of employees to the organization.

Consistent and mutual communication between management level and employees on safety and health issues at work will increase safety awareness among them. The study conducted by Mearns et al., (2003) shows that two-way communication and feedback regarding safety and health at work will improve the effectiveness of safety management practices. In the process to improve safety management practices, feedback in the issues of safety must be provided from the employees. The communication to the large population of employees need to be delivered through the target employees whom to be the influential workers. Vinodkumar and Bhasi (2010) describes the importance of regular discussion regarding safety issues between top management, middle level supervisors and employees was an effective administration practice in order to enhancing safety in workplace environment through good as well as harmonious two way communication.

#### **2.3.4 Safety Rules and Procedure**

Initial purpose of rules and procedure been created as a guideline and to facilitate the workers in conducting their daily work routine in a more organized and proper technique. Vinodkumar and Bhasi (2010) explains that the safety rules and procedures that are well established and well documented by an organization and its enforcement towards safety management practices improves the safety behavior of workforce at the workplace. The

safety rule and procedures very much correlated in term of adequate safety guideline provided by safet department, regular safety audit, enforcement on safety protocol and rules by supervisor as well as observing the effectiveness of the guidelines and procedure created in workplace with the aim of prevention from work related accident.

In the context of safety management practices, safety rules and procedure were depending on the frequent safety checks, level of enforcement on safety implementation by top management and also the effectiveness of the occupational safety and health procedures and rules been followed in the workplace in order to prevent accident from occurring. Cheyne & Cox, (2000) and Mearns et al., (2003) in their study have incorporated the component of safety rules and procedures also as on of the factors in their studies conducted. The findings shows, there was signification correlation between safety regulations and procedures toward the occurrence of accidents at work.

### **2.3.5 Workers Involvement**

Workers involvement play an important role in creating safety workplace environment. It's almost the same issues as relationship between communication and feedback. The workers must give full support to improve safety workplace issues. In according to Vinodkumar & Bhasi, (2010), worker's engagement was a behavioral oriented method which required involvement of an individuals or groups within the flow of communication on safety issues and contribute in decision making for safety in the organization.

The involvement of workers, in the safety committee important as their views and opinions were needed as they were the most expert people who carry out the tasks and for a better understanding on the actual situation of the tasks being performed. As the employees at workplace, they were the one of most qualified personnel to giving feedback as suggestions for improvements and they were dependable to deliberate on safety and health matters that affect the workers in the organization and workplace (Vredenburg, 2002). This empowers workers with the responsibility, authority and accountability involved in decisions and to ensure that both employees and employers were in same mutual understanding and same parallel setting of goals and objectives.

In a study conducted by Cox and Cheyne (2000), the involvement of employees in the context of safety was measured based on the level of their involvement in decision making, commitment shows by the management related to the issue of safety, involvement of the workers in identifying safety issues for improvement of safety workplace environment as well as discussions on the safety and health issues among the colleagues. As the result of those study showed workers' or employees' engagement is important to prevent the dangerous occurrence or accidents at the workplace.

### **2.3.6 Safety Promotion Policies**

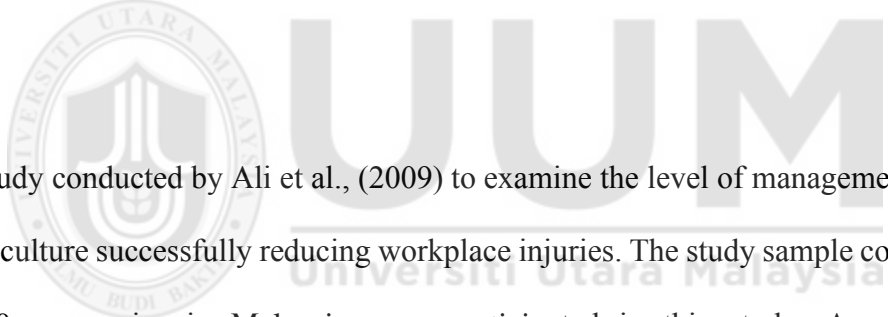
Hagen (2001) describe safety promotion policies by the management level such as recreational activities, rewards and incentives given as the purpose to motivate and encourage employees to strengthen and support safety in workplace. It will help in term of psychological of the employees to feel being appreciate by the employers. Safety promotion also help to encourage employees to contribute in the safety program held by the organization and improve awareness toward safety issues and motivate them to take self-precaution or personal protective equipment (PPE) while performing the task.

The reward system carried by an organization must be in form of standards action, administration procedure and rules in providing the compensation and distribution of the benefits to workers for appreciation of good performance and also as an inspiration or anything given as the acknowledgement on their successful effort and achievement Mashi (2014). As according to Geller (2001) the reward has a direct impact on desirable behavior when it increases the feeling of being appreciated. There empirical studies have found the same conclusion that rewards can enhance work-related outcome (khan, 2010; Oluleye, 2010).

### **2.4. Studies on Safety Management Practices Toward Safety Performance**

One of the famous study in safety management practices by Vinodkumar & Bhasi, (2010) that combine the previous study on safety conclude that the perception on six domain of

safety management practices and self-reported safety knowledge, safety motivation, safety compliance and safety participation by conducting a survey using questionnaire among 1566 employees belonging to eight major accident hazard process industrial units in Kerala, a state in southern part of India. A 59 items questionnaire had been developed using five-likert scale. The scale consists on 1 (strongly disagree) to 5 (strongly agree). Eight hypotheses were formulated from the literature of safety management practices and safety performance. The finding of this study explains that safety knowledge and safety motivation were found to be the key mediators in explaining these relationships. Safety training was identified as the most important safety management practice that predicts safety knowledge, safety motivation, safety compliance and safety participation.



The study conducted by Ali et al., (2009) to examine the level of management practices in safety culture successfully reducing workplace injuries. The study sample consist of 68 out of 950 companies in Malaysia were participated in this study. As a result, only communication and feedback and employee participation were significantly contributed to injury rates. The study also suggested that regular feedback about safety can reduce injury rate in an organization.

One of the earliest study on job safety, by Zohar (1980) has conducted to investigate the particular type of organizational climate and to examine the implications. The sample consist of 20 workers from each of 20 industrial organizations in Israel. Two objectives were formulated and the literature of organization climate and literature of safety practices.

The study conclude that behavior towards safety was most influence by the management commitement and also employee's perception on work safety issues. The result of the study can be understandable through this study that support the commitment of management and also the employees participation very much influencing the safety behavior in workplace.

Study conducted by (Mashi, Subramaniam, & Johari, 2018) about the effect of management commitment to safety, and safety communication and feedback on safety behavior of nurses. This paper examined the moderating role of consideration of future safety consequences in Nigeria. According to the presented findings from those study, outcome shows a positive relationship and strongly influence between management commitment to safety compliance of nurses in Abuja secondary healthcare facilities in Nigeria. This finding is consistent with previous research (Vinodkumar & Bhasi, 2010; Vredenburg, 2002). Besides, the study ensuing a significant positive relationship between management commitment toward safety participation, which was also in line with prior studies (Keffane, 2014; Naveh et al., 2005).

Safety compliance is the core safety activities needed to be carried out by the individuals to maintain and enhance workplace safety (Neal, Griffin, Hart, 2000). As for example, the usage of personal protective equipment (PPE) that is mandatory for every employee. In the safety compliance, it reflects to the individual personality in motivating himself or herself to always abide to the rules and also conducting his or her work based on the safety procedures or standard operation procedures that are documented by the management.

Vredenburg (2002) states that a well-designed reward system should be elevated in the organization into offering recognition to employees that will further encourage the behaviour modifications. Issues related to safety promotion policies such as rewards and incentives, creating awareness among workers, safety week celebration, encouraging employees to report safety matters and safe conduct are positive factors that contribute to a good safety management practice.

## **2.5 Theory of Planned Behavior (TRB)**

The relationship between safety management practices and safety behavior have been elaborated in theories related to the concept of behavior and changes in the behavior are seen most appropriate to the study. According to the Cambridge Dictionaries Online (2015), behavior refers to the way that someone or something behaves in a particular situation. Changes in behavior also explain the cause and effect of the behavior difference of an individual. In the theory of behavior change, there are three main factors that contribute; change of environment, personal and behavioral characteristics of the individual itself.

Theory of Planned Behavior (TRB) was one of the theories that discuss the changes in individual behavior. This theory has been introduced by Icek Azjen in 1985 and is an improvement model from the Theory of Reasoned Action (TRA) developed by Fishbein and Ajzen (1975) which was seen fragile. TRB theory has focused primarily on the level

of perceived behavioral control that drives the behavior (Ajzen, 1991). Until now, Ajzen model (1991) was used so widely in psychological theories to explain and predict human behavior.

Heinrich's Domino Theory was developed by H. W. Heinrich during his tenure with Travelers Insurance Company in 1930's and 1940's. Heinrich conducted research on thousands of insurance and injuries as well as illness reports. These report blamed human fault for 73% of the accidents. Heinrich made the conclusion that 88% of industrial accidents were caused by negligence of the workers. Heinrich further refined his research and discovered that the antecedents of injuries are attributed by workers indulging in unsafe actions. There are several reasons which motivate unsafe behavior among others are the work pressure and lack of safety participation among workers. Implementation of engineering control measures are essential to avoid the unsafe acts and unsafe work behavior among workers. Safety climate could also be elevated via initiating such endeavors because workers, who perceive that the work environment is safe and without hazard possess an elevated level of safety climate, thus are self motivated to participate in safety in safety program and adhere by established norm. It's also imperative to implement non engineering interventions such as safety training, hiring on basic of safety related selection criteria, progressive disciplinary programs and terminating the employment of habitual offenders.

## 2.6 Research Frame-work

The literature review presented above defines that safety management practices and safety behavior in an organization. The safety management practices were explained by management commitment, safety training, workers involvement, ‘safety communication and feedback’, ‘safety rules and procedures’ and lastly the safety promotion policies. The safety behavior was explained by safety knowledge, safety motivation, safety participation and safety compliances. Therefore, the research framework to study the safety management practices and its influences towards safety performance was developed and shown in figured 2.1 as below;

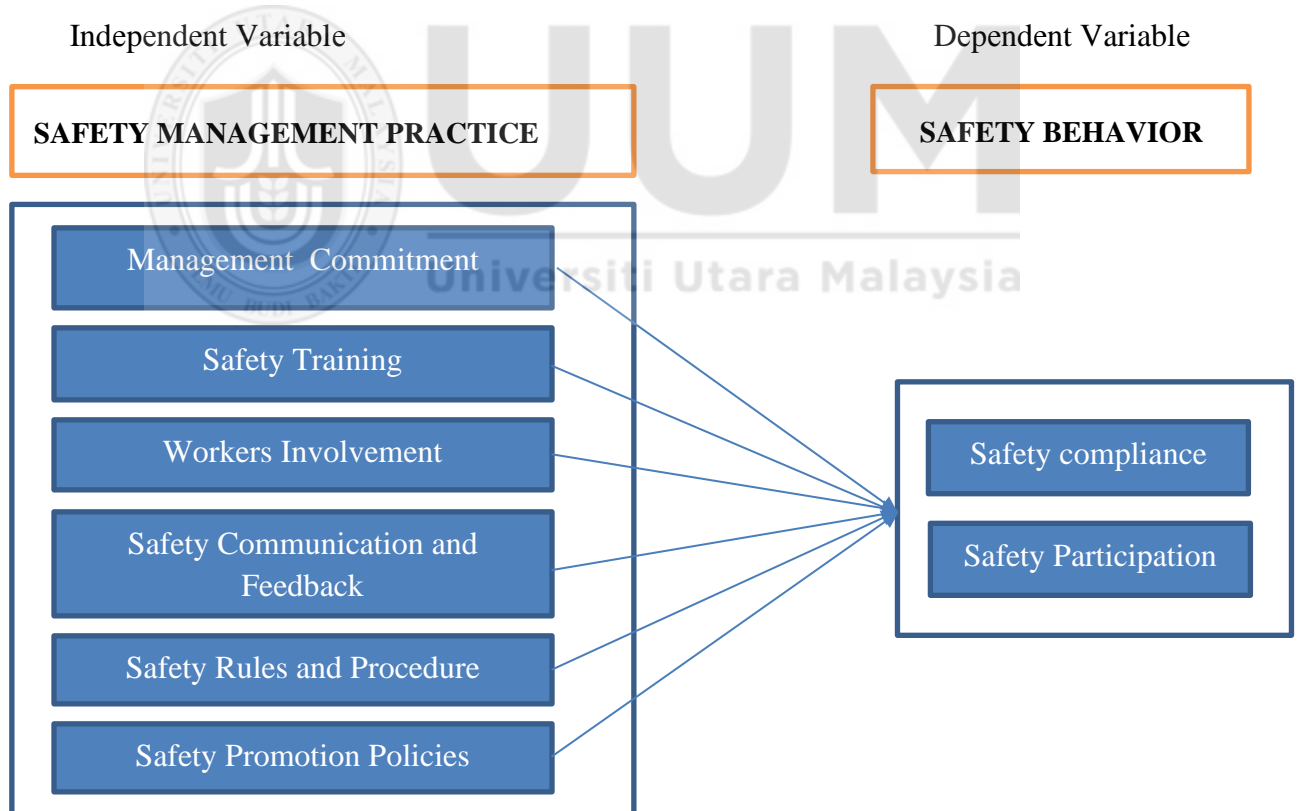


Figure 2.1

*Research Framework Safety Management Practices toward Safety Behavior*

Source : Adopted from Vinodkumar and Bhasi (2010).

## 2.7 Summary

As the conclusion of this chapter summarizes the context of this study, the perceived behavioral controls for safety compliance from management commitment, adequate training, employee contribution in decision and judgement making on safety related issues, regulations and policies of safety procedures, good communication related safety issues and safety promotion policies was determined among assistant medical officer in government hospital of the Kelantan State.



## CHAPTER THREE

### RESEARCH METHODOLOGY

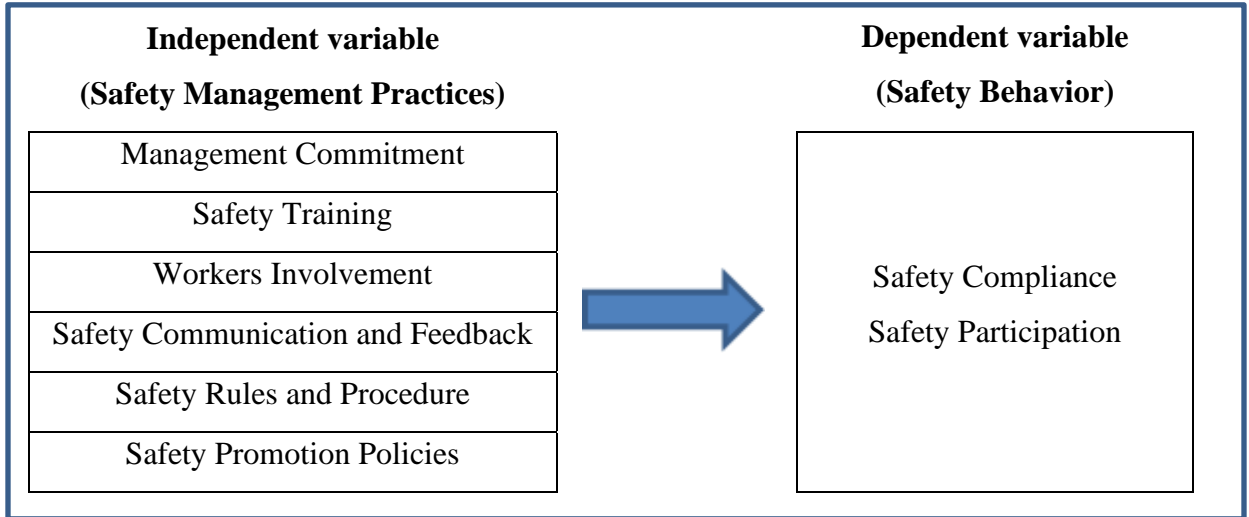
#### 3.1 Introduction

This chapter discussed on the methodology applied including research design for this study, population chosen and sampling, instruments used, data collection procedurs and data analysis techniques. The dependent variables and the independent variables component were defined and explained operationally and conceptually.

#### 3.2 Research Framework

The research framework was a concept of idea to explain the association between the variables in a research study (Sekaran, 2013). In this study safety management practices are explained by six dimension (management commitment, safety training, workers involvement, safety communicataion and feedback, safety rules and prosedure and safety promotion policies). The safety performance is explained by safety knowledge, safety motivation, safety compliance and also safety participation. This research is replicated from Vinodkumar and Bhasi (2010) who conducted a study toward safety management practices and safety behavior. In this study two dimension were used as represented as ‘safety performance’, which were safety compliance and safety participation whereby letter on, identified as safety behavior in this study. Therefore, the research framework

used in this study as describe in the figure 3.1 below to show the relationship of the study variables.



**Figure 3.1**  
*Research Framework Used for Safety Management Practices toward Safety Behavior*  
 Source : Adopted from Vinodkumar and Bhasi (2010).

### 3.3 Hypotheses

According to the previous literaterature discussed, the hypotheses in this study have been developed and to enables the process of the statistical analysis of relationships test. The hypotheses been developed express the relationship between safety management practices toward safety behavior. The safety management practices consisting of six dimension agreed (management commitment, safety training, workers involvement, ‘safety communication and feedback’, ‘safety rules and procedures’ and safety promotion policies ). while the safety behavior have two dimension (safety compliance and safety participation) among AMOs in Government Hospital in Kelantan. Listed below were hypothesis developed:

- H1: Management commitment positively related to safety behavior among assistant medical officer in Kelantan public hospitals.
- H2: ‘Safety training’ positively related to ‘safety behaviour’ among assistant medical officer in Kelantan public hospitals.
- H3: ‘Workers involvement’ positively related to ‘safety behaviour’ among assistant medical officer in Kelantan public hospitals.
- H4: ‘Safety communication and feedback’ positively related to ‘safety behaviour’ among assistant medical officer in Kelantan public hospitals.
- H5: ‘Safety rules and procedure’ positively related to ‘safety behaviour’ among assistant medical officer in Kelantan public hospitals.
- H6: ‘Safety promotion policies’ positively related to ‘safety behaviour’ among assistant medical officer in Kelantan public hospitals.

### **3.4 Research Design**

In this study, the research design was a descriptive study using quantitative data and adopt a cross-sectional approaches in data gathering appropriately designed to meet the objectives of the research and provided assistant suggestion toward the findings. The main purpose of this study is to determine whether safety management practices can affect the participation and compliance among AMOs in government hospital in Kelantan. Quantitative research design is the most suitable design because it’s provide a chance to

test the relationship between the variable. This approach also allowed the usage of standards questionnaire to every respondent which cover in this study.

### **3.5 Operational Definition**

**Safety Management Practices** refers to “policies, procedures, activities and strategies followed or implemented by the management of an organization targeting safety of their employee” (Vinodkumar & Bhasi, 2010).

**Management Commitment** can be defined as “organization’s management work together and take responsibilities to make safety and health a priority in the organization” (Shadab, Balaji & Narendra, 2016).

**Safety Training** refer to the “activities of instructing workers in hazard recognition and control measure, using available methods for protection (worker training), and educating workers in the field of occupational safety and health administration on how to deal with unforeseen problems or potential hazards in the workplace (worker education)” (Cohen & Colligen, 1998).

**Safety Communication and Feedback** refers to “the provision of information and data on the safety level of an organization to identify the degrees of risk that result in accidents at the workplace.” (Bently & Haslam, 2001).

**Employees’ Involvement** refers to “a behavioral oriented technique that involves individuals or groups in the upward communication flow and decision making processes within the organization.” (Vredenburgh, 2002).

**Safety Rules and Procedures** refer to “the degree to which an organization creates a clear mission, responsibilities, and goals, set up of standards of behavior for employees, and establish a safety system to correct worker’s safety behavior.” (Lu & Yang, 2011).

**Safety Promotion Policies** refers to “standards, rules and procedures connected with the compensation and allocation of benefits to employees for a job well done and motivation or anything given in recognition of effort or achievements” (Mashi, 2014).

**Safety behavior** define as the behavior that support safety and actions that required to cultivated among the workers in accordingly to achieve safety and healt obligation in order to avoid work related accident or injury (Zin & Ismail, 2012).

**Safety Compliance** defined as “generally mandated” behaviors or main activities that was essential performed by an individual while maintaining safety of the work environment. These behaviors involved in obeying to the standard operation procerdure (SOP) in workplace and comply to usage of Personel Protective Equipment (PPE) (Andrew Neal & Griffin, 2006).

**Safety Participation** defined as behaviors “frequently voluntary”, these safety behaviors includes voluntarily joining in safety activities and programs. Its including participate in safety meeting or offering help to the colleagues with safety-related matters (Andrew Neal & Griffin, 2006)

### 3.6 Measurement of Variables or Instrumentation

In the study, researcher applied the questionnaire that been adop and adapted form Vindokumar and Bhasi (2010). Six dimensions of safety management practices used were, management commitment, safety training, workers involvement, ‘safety communication and feedback’, ‘safety rules and procedures’ and safety promotion policies. Safatey behavior consist two component whichwere safety compliance and safety participation.

Each dimension has its own items and the items are measured by 5 point Likert-scale (1=strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree). The questionnaire was produced and ready in bilingual Malay dan English to create better understanding or the respondent. After pilot test been conducted, the questionnaire were change into malay version only due to the feedback form 75% of the respondent to preferred questionnaire in malay. Questionnaire used for this study is attached as per Appendix A.

Table 3.1 presents the dimensions, operational definition, items and sources from which the items were adapted and adopted.

Table 3.1

*The Dimensions, Operational Definitions, Items and Sources*

Variables	Operational Definition	Adapted Items	Sources
Management Commitment	The determination of the administration to pursue	1. Safety is given high priority by the hospital management. 2. Safety rules and procedures are strictly	Cheyne et al., (1998); Cox & Cheyne (2000)

	<p>safety programs and to employ methods for the prevention of occupational accidents in the workplace (Arboleda et al., 2003)</p>	<p>followed by the management of the hospital.</p> <ol style="list-style-type: none"> <li>3. Corrective action is always been taken when the hospital management level is told about unsafe practices.</li> <li>4. In my hospital, managers/supervisors do not shows interest in the safety of the workers.</li> <li>5. Hospital management considers safety to be equally important as healthcare delivery.</li> <li>6. Members of the management do not attend safety meetings.</li> <li>7. I feel that management of the hospital is willing to compromise on safety for increasing healthcare delivery.</li> <li>8. When near-miss accidents are reported, my management acts quickly to solve the problem.</li> <li>9. My hospital provides sufficient personal</li> </ol>	
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		protective equipment for the workers.	
Safety Training	The acquisition of knowledge and technical skills that enhance safety performance for the prevention of accidents and injuries at the workplace (HSE, 2010)	<ol style="list-style-type: none"> <li>1. My hospital gives comprehensive training to the workers in hospital health and safety issues.</li> <li>2. Newly recruits are trained adequately to learn safety rules and procedures.</li> <li>3. Safety issues are given high priority in training programs.</li> <li>4. I am adequately trained to respond to emergency situations in my workplace.</li> <li>5. Management of the hospital encourages the workers to attend safety training programs.</li> <li>6. Safety training given to me is adequate to enable me to assess hazards in workplace.</li> </ol>	Cox & Cheyne (2000)
Employees' Involvement	involvement of individuals or groups of employees in the conduct of safety programs and	<ol style="list-style-type: none"> <li>1. Management of the hospital always welcomes opinion from the workers before making final decisions on safety related matters.</li> </ol>	Coyle et al., (1995);

	<p>in the decision-making progress within the organization (Khan, 2010)</p>	<ol style="list-style-type: none"> <li>2. My hospital has safety committees consisting of representatives of management and workers.</li> <li>3. Management of the hospital promotes workers involvement in safety related matters.</li> <li>4. Management of the hospital checks with workers regularly about hospital health and safety issues.</li> <li>5. Workers do sincerely participate in identifying safety problems.</li> </ol>	
<p>Safety Communication and Feedback</p>	<p>The provision of information and data on the safety level of an organization to identify the degrees of risk that result in accidents at the workplace (Bentley &amp; Haslam, 2001)</p>	<ol style="list-style-type: none"> <li>1. My hospital have a hazard reporting system where employees can communicate hazard information before incidents occur.</li> <li>2. Management of the hospital operates an open door policy on safety issues.</li> <li>3. There is sufficient opportunity to discuss and deal with safety issues in meetings.</li> </ol>	<p>Flin et al., (2000)</p>

		<ol style="list-style-type: none"> <li>4. The target and goals for safety performance in my hospital are clear to the workers.</li> <li>5. There is an open communications about safety issues in this hospital.</li> </ol>	
Safety Rules and Procedures	The degree to which an organization creates a clear mission, responsibilities and goals, setting up of standard of behavior for employees, and the establishment of a safety system to correct workers' behavior (Lu & Yang, 2010)	<ol style="list-style-type: none"> <li>1. The safety rules and procedures followed in my hospital are sufficient to prevent incidents occurring</li> <li>2. The facilities in the safety department are adequate to meet the needs of my hospital.</li> <li>3. My supervisors and managers always try to enforce safety working procedures.</li> <li>4. Safety inspections are carried out regularly.</li> <li>5. The safety procedures and practices in this hospital are useful and effective.</li> </ol>	Glendon and Litherland (2001)
Safety Promotion Policies	Policies that aim to ensure the presence and	<ol style="list-style-type: none"> <li>1. In my hospital, safe behavior is considered as a positive factor for job promotions.</li> </ol>	Neal et al., (2000)

	<p>maintenance of conditions that are necessary to reach and sustain an optimal level of safety (Welander, et al, 2004)</p>	<ol style="list-style-type: none"> <li>2. In my hospital, employees are rewarded for reporting hazards (thanked, cash or other rewards, recognition in newsletter, etc.)</li> <li>3. In my hospital, safety week celebration and other safety promotional activities arranged by the management are very effective in creating safety awareness among the workers.</li> <li>4. There exists very healthy competition among the workers to find out and report unsafe condition and acts.</li> <li>5. Our supervisor becomes very happy and angry when employees find out and report unsafe conditions and acts in our section.</li> </ol>	
<p>Safety Compliance</p>	<p>The employee adherence to safety procedures and the behavior exhibited in performing</p>	<ol style="list-style-type: none"> <li>1. I use all necessary safety equipment to do my job.</li> <li>2. I carry out my work in a safe manner.</li> <li>3. I follow correct safety rules and procedures while carrying out my job.</li> </ol>	<p>Vinodkumar &amp; Bhasi (2010); Neal et al., (2000)</p>

	work safety (Neal et al., 2000)	<ol style="list-style-type: none"> <li>4. I ensure the highest levels of safety when I carry out my job.</li> <li>5. Occasionally due to lack of time, I not deviate from correct and safe work procedures.</li> <li>6. Occasionally due to over familiarity with the job, I deviate from correct and safe work procedures.</li> <li>7. It is not always practical to follow all safety rules and procedures while doing a job.</li> </ol>	
Safety Participation	Employee behavior that does not directly contribute to an individual's personal safety, but helps to develop an environment that supports safety (Neal et al., 2002)	<ol style="list-style-type: none"> <li>1. I help my co-workers when they are working under risky or hazardous conditions.</li> <li>2. I always point out to the management if any safety related matters are noticed in my company</li> <li>3. I put extra effort to improve the safety of the workplace.</li> <li>4. I voluntarily carry out tasks or activities that help to improve workplace safety.</li> <li>5. I encourage my co-workers to work safely.</li> </ol>	Zohar (1980)

### 3.7 Population and sample size

In this study, the population selected were assistant medical officers in public hospitals in the state of Kelantan. Information from the Department of Human Resource in the Kelantan State Health Department, the total number of permanent AMOs working in the hospital in 2020 was 420. Thus, the sample population in this study was 420 AMOs. Based on the sample population, the sample size was identified using table simplified by Krejcie & Morgan's (1970). According to the table 3.2 below, researcher have simplified the size of sample and been decided to ensure a good decision model, from 420 AMOs, 201 were chosen to achieve a 95% confidence interval.

**Table 3.2**

*Simplified Table of Krejcie & Morgan (1970) Sampling Size*

Table 3.1 Table for Determining Sample Size of a Known Population									
N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	100000	384

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

### 3.8 Sample and Sampling Techniques

The suggested sample size for total assistant medical officer in government hospital in Kelantan state with sample population of 420 is approximately 201 respondent. However, for this study, total of 250 sample been selected randomly from the whole population. After the determination of sample size, 250 questionnaires have been distributed to the respondents by providing them an adequate time to complete the questionnaires.

Sampling was the process decided by the researcher in selecting a sufficient number of participant from the population, so that the study can representing the whole population. In this study, the sample populations are assistant medical officer, working in government hospital in state of Kelantan. In this study, probability sampling method specifically named simple random sampling was used in selection of the participant from the sample population. The questionnaire was distributed through AMOs supervisor in government hospital in Kelantan. Each of the AMOs was chosen entirely and by any chance, each member of the AMOs has an equal probability of being selected as the sample.

There were various methods in the obtaining samples for random sampling procedures. A lottery selection method that uses random number schedules that use computerized online input and takes samples with or without replacement. The lottery selection method is the easiest method for random sampling. The table 3.3 below shows the results obtained using lottery voting using the input <https://stattrek.com/statistics/random-number-generator.aspx>.

Table 3.3

*Random Sampling Generated by Lotery Voting table.*

250 Random Numbers																	
137	335	383	352	026	052	171	344	356	012	092	050	288	414	146	308	044	418
333	168	241	246	232	273	151	095	153	398	083	077	207	237	259	192	394	096
036	328	182	201	367	177	214	326	410	159	268	165	054	274	035	025	252	102
243	129	162	371	164	255	205	353	329	093	270	048	404	373	047	185	304	057
377	034	225	183	001	016	279	021	065	131	045	301	374	379	365	405	173	228
286	111	216	210	340	370	392	325	107	229	169	041	315	334	080	310	347	039
011	292	401	186	187	407	056	158	385	123	376	150	295	084	297	387	338	066
351	114	403	070	117	086	180	317	017	079	090	167	358	316	133	149	412	043
198	264	178	014	395	400	386	007	306	361	419	132	349	343	053	391	413	346
128	362	191	174	028	355	101	023	368	061	144	005	002	319	320	120	189	290
098	256	089	283	008	105	010	409	359	088	063	247	116	202	250	219	313	030
038	211	223	299	071	337	155	282	124	176	331	396	311	147	108	113	099	140
019	382	020	265	062	364	074	104	126	059	261	075	324	195	160	068	234	156
081	193	277	138	135	032	342	141	322	003	119	389	110	416	029	238		

**Specs:** This table of 250 random numbers was produced according to the following specifications: Numbers were randomly selected from within the range of 1 to 420. Duplicate numbers were not allowed.

### 3.9 Process of Data Collection Procedures

As for the data collection procedures in this study conducted through four steps. First, obtained an approval letter from UUM to conducting the research project. Second, obtaining the permission and registration in National Medical Research for conducting the research in Ministry of Health. Third, obtaining the permission to conduct the study from the directed of every hospital and lastly distribution of the questionnaire and collecting the data started. The complete questionnaire will be collected after a weeks from the supervisor. The data collection expected to be finish within two weeks.

### **3.10 Data Analysis Preparation**

The statistical tools used in the study to help the researcher in analyzing data and data processing in testing research hypothesis. Data set were collected from the completed questionnaire that been distributed were encoded into statistical package for Social Sciences (SPSS) software version 26.0 for data analysis. Using SPSS software researcher determine the appropriate and applicable statistical analysis technique to test the hypothesis. Five type of analysis were performed, reliability analysis, descriptive sample analysis, descriptive main variable analysis, correlation analysis and regression analysis.

### **3.11 Pilot test**

Pilot study conducted as its served to be a guidance for larger study and it collected the data form the definitive subjects of research project in small scale probability sampling technique without exact standard numbers (Zikmund, 2003). Beside that, the pilot test was conducted to determine the degree of clarity of questionnaire and to identify problems areas that need attention or improvement.

A pilot study result can guide the researcher in the actual study and allow them to gauge the ambiguous aspects of the study in order to examine the feasibility of a research endeavor (Leon et al., 2011). It makes sure the processes of the main studysuch as recruitment, randomization, treatment and follow-up assessment all can worktogether (Arain, Campbell, Cooper, & Lancaster, 2010). This applies to all types of research.

### 3.12 Reliability test

The reliability and validity of the questionnaire were tested by carrying out a pilot study before it was distributed to the respondents. The reliability analysis is important to check the dependability of the data. As according to Sekaran (2005), all data entries have to be checked to ensure that subsequent analysis and finding were credible, this was to establish the reliability of the data. Cronbach's alpha coefficient used in measuring the main reliability test. Cronbach's alpha was one of the most appropriate statistical test for reliability estimation of a number of questions because it can check for ordinal data, such as the Likert scale (Mcbride, Levasseur, & Li, 2013). The value of Cronbach's alpha was convincing when the value was 0.70 and considered as good when the value was 0.80 (Sekaran & Bougie, 2013) while a value above 0.60 could be considered as acceptable in the case of exploratory research (Hair, Anderson, Tatham, & Black, 1998; Loewenthal, 2004). Thus, if the coefficient alpha is higher, then the reliability of the test is better. It determines how well the measured items are positively related to the one another. Through referring table 3.1, the result of Cronbach's alpha value for pilot study were listed in accordingly to each group of variables

Table 3.4  
*Reliability test of the Pilot Study*

<b>Constructs</b>	<b>Variable</b>	<b>Number of Items</b>	<b>Cronbach Alpha's</b>
Management Commitment	Independent	9	0.668
Safety Training	Independent	6	0.899
Employees' Involvement	Independent	5	0.689
Safety Communication and Feedback	Independent	5	0.829
Safety Rules and Procedures	Independent	5	0.803
Safety Promotion Policies	Independent	5	0.802
Safety Behavior	Dependent	12	0.780
Total		47	

### **3.13 Data Screening Proses.**

Data screening is the process of ensuring the data is clean and ready to use before the data collected proceed with further statistical analyses. There were several of data screening process, such as missing data test, normality test, linearity test and also multicollinearity test. As the initial proses in analyzing data, its must be screamed in order to ensuring the useable of the data set, its reliability, and validity for purpose of testing causal theory.

### **3.13 Colleration Analysis**

The correlation analysis using correlation test (Pearson) conducted to measure the significance of linear bivariate relationship between the independent and dependent variables. It's can be seen through the value of r from the results of the collected data and the data findings approaching the value of 1 was better and stronger the correlation. Table 3.5 shows the intensity of colleration by r-value in colleration test.

**Table 3.5**

*Strength of colleration by r-value in colleration test*

<b>r-Value</b>	<b>Intensity</b>
0.10 - 0.29	Weak
0.30 - 0.49	Medium
0.50 - 1.0	Strong

Julie Pallant (2005)

### **3.14 Multiple regression analysis**

Multiple regression analysis can be understand as an extension of simple linear regression. The multiple regression analysis commonly used to examine the significant of the relationship between independent and dependent variables. Its also determine the direction of the relationship and also predict the strength of the relationship.

### **3.15 Summary**

As the summary in chapter three has highlighted all the research methodology that were adopted and used in this research to answer the relationship of variable in the current study. The research framework and relevant hypotheses were developed based on previous research work done on the topic that analyzed the relationships between safety management practices and safety behavior.

## CHAPTER FOUR

### RESEARCH ANALYSIS AND FINDINGS

#### 4.1 Introduction

The chapter four, researcher will discuss about descriptive analysis from the study conducted to measure the 'relationship between safety management practices and safety behavior' among assistant medical officers in a government hospital at eastern peninsular Malaysia, specifically in state of Kelantan. This chapter explains the response rate from the questionnaire distributed, respondent's demographic background, reliability analysis, descriptive analysis of variables, Pearson's correlation analysis followed by hypothesis testing using regression analysis and lastly was the summary of fourth chapter.

#### 4.2. Response Rate

In this study, self-administered questionnaires were used as a medium in data collection proses. 250 questionnaire were distributed to AMO's in a government hospital in Kelantan state. The total feedback questionnaires were 209. Thus, the response rate is 83.6%, however, there 4 questionnaires been excluded due to incomplete form. Therefore, the valid questionnaires for data analysis were 205 respondent. From the table 4.1 shows the response rate of the study.

**Table 4.1***Response Rate of The Study*

<b>Item</b>	<b>Total (n)</b>	<b>Percentage (%)</b>
Distributed Questionnaires	250	100
Collected Questionnaires	209	83.6
Valid Questionnaires	205	82

### **4.3 Analysis Demographic**

This section, demographic features from the study population to describe all background information according to research participants. All the demographic information such as sex, education level, gred of their position in hospital, working experience as AMOs, and current department they are working also were analysed in this section. The demographic characteristics of the participants were measured on nominal and ordinal scales.

Table 4.2 represents the demographic feature of respondents. Regarding to the gender of the participants, the numbers of male respondents was higher than female respondents with 178 candidate or equivalent to (86.8 percent) male, while the remainder were 27 female candidate (13.2 percent). Based on the educational level of each participants, 199 (97.1 percent) had a Diploma, 6 (2.9 percent) had a Bachelor degree, non have Master's degree or PhD degree. Most of the respondent were from gred U29/ U32(KUP) which is 158 participant, gred U32/ U36(KUP) 39 participant, gred U36 4 participant and gred U41/U42 were 4 participant. Approximately 13.7 % of the participants had less than 1 years of

working experience, 27.8% have working experiences for 1-5 years, 14.6% have 6-10 years of working experiences, 24.4% have 11-15 years of working experiences, 14.6% have 16-20 years of working experiences and the rest 4.9% have more than twenty years of working experiences. Meanwhile, more than half of respondent were working in Emergency & Trauma which is 63.4%, those who were in medical department about 5.4%, those in Orthopedic department 4.4%, those in surgical department 4.9%, those in Aneesthesiology department 6.8%, those in Psyciatric department 1% and 14.1% working in others department.



Table 4.2

*Descriptive Statistics of Participants' Demographic*

<b>Demographic</b>	<b>Characteristics</b>	<b>Frequency</b>	<b>Percentage%</b>
Gender	Male	178	86.8
	Female	27	13.2
Educational Level	Diploma	199	97.1
	Bachelor degree	6	2.9
	Master's degree	0	0
	PhD degree	0	0
Gred	U29/ U32 (KUP)	158	77.1
	U29/ U32 (KUP)	39	19.0
	U36	4	2.0
	U41/ U42	4	2.0
Working Experience	Kurang 1 Tahun	28	13.7
	1 ke 5 Tahun	57	27.8
	6 ke 10 Tahun	30	14.6
	11 ke 15 Tahun	50	24.4
	16 ke 20 Tahun	30	14.6
	21 Tahun dan lebih	10	4.9
Current Department	Emergency & Trauma	130	63.4
	Medical	11	5.4
	Orthopedic	9	4.4
	Surgical	10	4.9
	Anesthesiology	14	6.8
	Psychiatric	2	1.0
	Other's	29	14.1

*(n = 205)*

## **4.4 Data Screening**

Data screening of the collected data has been evaluated to ensure that the analysis process is not cause problems in terms of the authenticity of the data collected for the purpose of the study.

### **4.4.1 Missing Value Analysis**

In the initial SPSS dataset, out of 9,635 questions, there are 8 missing value and to be more precisely the missing value are on the management commintment had 1 missing value, safety training had 2 missing value, worker involvement had 1 missing value, safety communication had 1 missing value, safety promotion policies had 1 missing value, safety compliance had 1 missing value and safety participation also had 1 missing value. In other hand, only safety rules and procedure doesn't had any missing value. Even though a generally sufficient percentage of missing value in data set for valid statistical inference does not subsist among researchers, it is fair to say that scholars agreed that a missing rate of 5% or less is non-significant (Schafer, 1999; Tabachnick & Fidell, 2007). Since, the missing data only 0.08%, thus it's not-significant to affect the result.

### **4.4.2 Normality Test**

Normal distribution of scores is crucial factor for analysis and multivariate analysis (Pallant, 2007). Normality test was described as symmetrically, bell-shaped curve which has the most highest frequency of scores in the middle and smaller frequencies toward the

beginning and the ends of the curve. There were several statistical analysis methods available to assessed the normality of the distributions. In this study, analysis normality was assessed by determining the valur of kurtosis and skewness as recommended by Ferguson and Cox (1993). The skewness value provides an indication of the symmetry of the distribution whereas kurtosis value provides information about the peakedness of the distribution. Thus, to find out the distribution of data collected that is good or suitable for inference analysis, normality test needs to be done. According to Sakaran (2010) normality test is a prerequisite to correlation and regression analysis test. Bulmer (1979) measured skewness with a value of -1 to 1 is normal and Kevin & MacGillivary (1988) measured kurtosis stating -3 to 3 is normal.

Table 4.3  
*Normality Test of the Variable*

<b>Variable</b>	<b>Mean</b>	<b>Skewness</b>	<b>Kurtosis</b>
Management Commitment	4.36	-.037	-.742
Safety Training	4.27	-.334	.292
Worker Involvement	4.14	-.004	-.081
Safety Communication And Feedback	4.12	.057	-.243
Safety Rules And Procedure	4.12	.078	-.090
Safety Promotion Policies	3.61	.071	-.732
Safety Behavior	4.51	-.590	-.485

*N (205)*

Table 4.3 shows the normality statistical findings of study conducted. The lowest skewness score for this study data is -0.590 while the highest is 0.078. The score for the lowest kurtosis is -0.742 and the highest is 0.292. Thus, the findings of skewness and kurtosis data score values for all variable were in the normal range.

### 4.4.3 Linearity Test

The linearity test was evaluated on the *actual* data of the study. This is because to ensure that the data are well organized *in* normal distribution, using *P-P* plots to see the linearity of the data *set* that has been collected. Linearity test refers to the consistent slope of change that represents the relationship between the independent variables and the dependent variables. The use of *P-P* plots was used to confirm whether the population sample of this study is linear. According to Field (2009), the probability plot of the data distribution will appear linear in a straight line. The findings of the linearity test of this study are described in figure 4.1 as below;

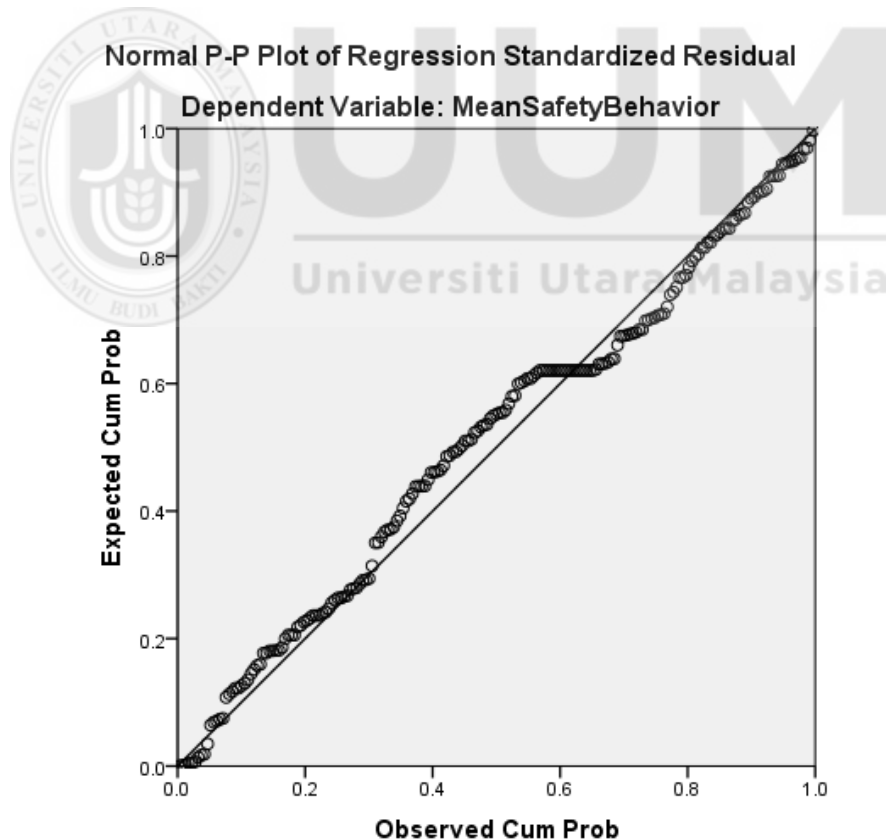


Figure 4.1

*Linearity Test Safety Management Practices and Safety Behavior*

#### 4.4.4 Multicollinearity Test

Multicollinearity is a situation in which one or more exogenous latent constructs turn out to be highly correlated. Multicollinearity is a problem that occurs when predictor variables are tremendously correlated to 0.9 and above (Hair et al., 2010). It also rises the standard errors of the coefficient, which consecutively render the coefficients statistically non-significant (Tabachnick et al., 2007). Regression results from SPSS were used to examine the Variance Inflated Factor (VIF) and tolerance value to detect multicollinearity problems. Hair, Ringle and Sarstedt (2013) recommended that the multicollinearity was presented when the VIF value was greater than 5 and when the tolerance value is less than 0.20. Table 4.6 indicates the value of variance inflated factor (VIF) and value of tolerance and it is clearly that no variable are interrelated with other variables. Therefore, the research concludes that there is dilemma of multicollinearity between the variables under study.

Table 4.4  
*Multicollinearity Test Based on Assessment of Tolerance and VIF Values*

<b>Independent Variable</b>	<b>Tolerance</b>	<b>VIF</b>
Management Commitment	.354	2.82
Safety Training	.258	3.88
Employees Involvement	.160	6.23
Safety Communication and Feedback	.214	4.66
Safety Rules and Procedures	.149	6.71
Safety Promotion Policies	.410	2.43

(n=205)

*Dependent Variable: SafetyBehavior*

#### 4.5 Reliability Analysis

Reliability analysis was conducted for the final data collection to determine that the items used to measure in this study were either acceptable or as reliable. The reliability of the scale can be measured by the value of the alpha coefficient, which ranges from 0 to 1. The Cronbach's alpha represents a good strength in term of its association when the value is range from 0.7 to 0.8 and excellent strength of the association is shown when the value range from 0.8 to 0.9 (Sekaran & Bougie, 2013, Hair et al., 2006) while a value above 0.60 could be considered as acceptable in the case of exploratory research (Loewenthal, 2004).

Table 4.4 below represents the reliability analysis for the data collection during pilot test and actual data collection. From the table, result of the reliability analysis during pilot test were shown independent variable item (management commitment) was the only below 0.7 while the others item independent variable (safety training, workers involvement, 'safety communication and feedback', 'safety rules and procedure' and safety promotion policies) and dependent variable (safety behavior) were above 0.7, thus they are all reliable items. Furthermore the reliability analysis outcome of independent variables (management commitment, safety training, workers involvement, 'safety communication and feedback', 'safety rules and procedure' and safety promotion policies) and the dependent variable (safety behavior) show that the Cronbach's alpha coefficient test was higher than 0.8, thus they were in excellent reliable items for actual data collection.

Table 4.5

*Reliability Analysis*

<b>Variable</b>	<b>Cronbach,s Alpha based on standardized item (Pilot)</b>	<b>Cronbach,s Alpha based on standardized item (Actual)</b>	<b>Number of Items</b>
Management Commitment	.668	.890	9
Safety Training	.899	.928	6
Workers Involvement	.689	.895	5
Safety Communication and Feedback	.829	.900	5
Safety Rules and Procedures	.803	.923	5
Safety Promotion Policies	.802	.882	5
Safety Behavior	.780	.942	12
Total			47

**4.6 Descriptive Analysis of Variables**

Descriptive analysis of variables provides the basic characteristics of the data obtained from the study conducted, and in the section specifically related to variables used. The variables were descriptively analysed and performed to explain the value of mean and standard deviation for latent variables were determined in this study. As for all the constructs in this study were measured using five point Likert-scale accordint to table 4.6 as shows below.

Table 4.6  
*Five point Likert-scale.*

Measurement	1	2	3	4	5
Discription	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly Agree

The researchers used descriptive statistics to measure central tendencies and dispersion of the data set through the value obtained from the mean and standard deviation. As the understandable function of the mean value was to measure the average of the data set, while the standard deviation used to measure the dispersion of the data set that deviated around the mean. Table 4.7 below describe analysis statistic of the variables in this study.

Table 4.7  
*Descriptive of Variables*

Variables	Mean	Std. Deviation
Management Commitment	4.36	0.43
Safety Training	4.27	0.52
Workers Involvement	4.14	0.53
Safety Communication and Feedback	4.12	0.54
Safety Rules and Procedures	4.12	0.54
Safety Promotion Policies	3.51	0.82
Safety Behavior	4.51	0.43

*N (205)*

Table 4.7 describe analysis of the variables. Management commitment has mean value of 4.36 with standard deviation 0.43. The mean value for safety training was 4.27 with standard deviation 0.52. The mean value for worker involvement was 4.17 standard deviation was 0.53. The mean value for safety communication and feedback was 4.12 with standard deviation 0.54. The mean value for safety rules and procedures was 4.12 with

standard deviation 0.54. The mean value for safety promotion policies was 3.51 standard deviation 0.82. Meanwhile, the mean value for safety behavior was 4.51 with standard deviation 0.43.

In summary for descriptive analysis of variables, the mean score for all variables are more than 3, this represent that the respondent agree with all of the items used in describing safety management practices and safety behavior.

#### **4.7 Correlation Analysis**

Correlation analysis used in measurement the strength of the relationship between two variables. Through this information, allows the researcher to conclude the relationship between variables, and to determine the most important independent variable influence the dependent variable. The Pearson correlation have indication for scoring value between +1 and -1, where 1 indicates that there was a positive linear correlation, 0 represent no linear correlation while -1 indicate negative linear correlation. The closer the value of Pearson Correlation Coefficient to 1.0, the stronger the correlation between two variables. Table 4.8 as below shows the correlation analysis between safety management practices with safety behavior.

Based on the table 4.8, all the six variables, including management commitment, safety training, workers involvement, 'safety communication and feedback' and 'safety rules and procedure' have positive significant correlation with safety behavior. In accordingly, correlation value of the independent variable toward dependant variable were: management commitment 0.659, safety training 0.560, workers involvement 0.597, 'safety

communication and feedback' 0.504, 'safety rules and procedure' 0.563 and as for the safety promotion policies 0.303. Management commitment has the highest correlation value which is 0.659 compared to others safety management practices whereas safety promotion policies has the lowest correlation value which is 0.303.

Table: 4.8  
*Pearson Correlation Analysis Result*

	1	2	3	4	5	6	7
1. Management Commitment	1						
2. Safety Training	.759**	1					
3. Worker involvement	.760**	.819**	1				
4. Safety communication & feedback	.727**	.780**	.860**	1			
5. Safety Rules & Procedure	.747**	.816**	.880**	.850**	1		
6. Safety promotion policies	.561**	.614**	.705**	.678**	.762**	1	
7. Safety Behavior	.659**	.560**	.597**	.504**	.563**	.303**	1

#### 4.8 Multiple regression analysis

As for the multiple regressions test was a statistical analysis carrying out to examine the variance in dependent variable that can be explained by independent variables. It was given the indication of relative contribution of each independent variables toward dependent variable. In this study, the independent variable were safety management practices and dependent variables were safety behavior. Table 4.9 result of regression explains the regression result among safety management practices and safety behavior. Regression result shows the regression level at  $R = 0.711$ . The model summary explains that the value of R Square of 0.505 or 50.5% of the safety behavior (safety compliance and safety participation) was explained by safety management practices (management commitment, safety training, workers involvement, 'safety communication and feedback', 'safety rules and procedure' and safety promotion policies) among assistant medical officer in government Hospital in Kelantan, while the remaining 49.5% is elaborated by another aspects does not included in the scope of this study..

Table: 4.9

*Model Summary*

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	.711	.505	.490	.30740

*Predictors: (Constant), MeanMC, MeanST, MeanWI, MeanSCF, MeanSRP, MeanSPP*

*Dependent Variable: MeanSafetyBehavior*

Table: 4.10

*Multiple Regression on Safety Behavior*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1. Management Commitment	.482	.084	.483	5.741	.000
2. Safety Training	.012	.081	.015	.151	.880
3. Worker involvement	.293	.100	.365	2.922	.004
4. Safety communication & feedback	-.149	.086	-.187	-1.729	.085
5. Safety Rules & Procedure	.207	.102	.263	2.031	.044
6. Safety promotion policies	-.160	.041	-.308	-3.947	.000

The results of the study also explained the overall beta value of each six variable in safety management practices. There were three independent variables have significant relationship toward dependent variable and the other three does not significant. According above Table 4.10, shows relationship between management commitment and safety behavior was significant ( $\beta = 0.483$ ;  $t = 5.741$ ;  $p < 0.05$ ). The result shows the relationship between worker's involvement and safety behavior was statistically significant with coefficient  $\beta = 0.365$ ;  $t=2.922$ ; ;  $p < 0.05$ ). The last three was the relationship between safety rules and procedure to safety behavior was also significant ( $\beta = 0.263$ ;  $t = 2.031$ ;  $p < 0.05$ ). The other three variable thus not have significant relationship toward safety behavior were safety training with coefficient ( $\beta = 0.051$ ;  $t = 0.151$ ;  $p > 0.05$ ). The item safety communication and feedback also does not significantly relate to safety behavior with coefficient ( $\beta = -0.187$ ;  $t = -1.729$ ;  $p > 0.05$ ). Finally, the last remaining variable analyze relationship between safety promotion policies and safety behavior was negatively significant ( $\beta = -0.308$ ;  $t = -3.947$ ;  $p > 0.05$ ). Thus, the analysis supported only three

hypothesis which have significant positive relationship toward safety behavior which were management commitment, workers involvement, and safety rules and procedures.

#### 4.9 Hypothesis Testing

The hypothesis testing were explained by statistically significant of relationship between independent variable (safety management practices) and dependent variable (safety behavior). The result of the study base on significant relationship was explained multiple regression analysis on the previous topic. Thus, the summary of hypothesis result was stated in Table 4.11 below.

Table 4.11

*Hypotheses Results*

<i>Hypotheses</i>	<i>Results</i>
Management commitment is positively related to safety behavior.	Supported
Safety training is positively related to safety behavior.	Not Supported
Employees' involvement is positively related to safety behavior.	Supported
Safety communication and feedback are positively related to safety behavior.	Not Supported
Safety rules and procedures are positively related to safety behavior.	Supported
Safety promotion policies are positively related to safety behavior.	Not Supported

#### 4.10 Summary

The study was conducted among 209 respondents of assistant medical officer with achievement of 83.6% response rate. The Cronbach Alpha result for all 47 items of questionnaire showed  $\alpha=0.973$ . Among the six-independent variable (safety management practices), one has strong correlation, four have moderate correlation and one has weak correlation toward dependent variables (safety behavior) and the regression  $R=0.711$ . This chapter also summarize the supported hypothesis from the multiple regression analysis. Next chapter will provide discussion, recommendation for purpose of future study and conclusion.



## CHAPTER FIVE

### DISCUSSION AND CONCLUSION

#### 5.1 Introduction

As the final chapter conclude the main findings of this study base on the objective and hypothesis created, which discuss the relationship between safety management practices and safety behavior among assistant medical officers in a government hospital in Eastern peninsular of Malaysia. Moreover, implications of the study, limitations as well as recommendations incoming research were also provided in this chapter. Finally, the overall conclusion form the present study was explained at the end of the chapter.

#### 5.2. Recapitulation of Result

This research was a descriptive study using quantitative and adopt a cross-sectional approach in data collection, appropriately designed to meet the objectives and assist toward the findings. The main purpose of this study was to determined whether safety management practices can affect the safety behavior among workers in government hospital in Kelantan. Questionnaire distributed to 250 assistant medical officers in government hospital in Kelantan with response rate was 83.6%. Data collected was statistically analyses using SPSS to describe demographic, mean & standard deviation, data normality, reliability, linearity and multicollinearity. Pearson correlation analysis show the highest correlation

value was 0.659 whereas the lowest correlation value was 0.303. Regression analysis conclude the relationship explains by the value of R Square of 0.505 or 50.5% of safety behavior can be explained through safety management practices. Out of six hypotheses formed, three were accepted and three were rejected.

### **5.3 Discussion**

This section discussed the objective of the study and conclude the findings as it's determined the relationship between safety management practices and safety behavior among assistant medical officers. The titles of the discussion in this chapter are arranged following the research question.

#### **5.3.1 The Relationship Between Management Commitment and Safety Behavior**

The present study shows that the management commitment have was very much influence safety behavior. Its answering the objective that the management commitment does has positive relationship with safety behavior.

It's similar result as a study conducted by (Zin & Ismail, 2012) at construction organization in Malaysia agreed that for safety behavior positively improve with employer or top management levels shows the same commitment. This indicate that management was really committed to safety of the staff.

It is most likely by shows the commitment from management level who are concerned about the safety issues of their employees will result in a positive perception of employees

to the employer. By regain employees respect always give positive influences and create a good teamwork environment and make them more cooperative on instructions or organization safety procedure.

Furthermore, the presence of supervisors who always show interest about employee safety issues will also make employees more obedient to any rules of safety procedures and carry out tasks safely. It also due to employees who worked closely with their supervisors who represent management level can easily convey and receive all safety issues and instruction details directly between top management and workers. This finding shows there is no obvious gap in the relationship between workers and their top management. It also indicates that workers have concluded that their top management have acknowledge the important roles related to their safety at work.

### **5.3.2 The Relationship Between Safety Training and Safety Behavior**

Result from analysis reveal that safety training not significantly influence safety behavior among AMO's in government hospital in Kelantan. Therefore there was no relationship between safety training and safety behavior.

The result of this study shown an opposite situation from the others scholars. Study conducted by Burke (2006) emphasize that the effectiveness of safety training increase the knowledge and significantly reducing unwanted accident among employees. Thus, increase the awareness and help to improve safety behavior. Regular evaluation of safety knowledge, level of safety motivation and safety skills were creating fundamental part of

safety training programmed. Safety training program is very crucial in training the new staff and for the refresher course of the current staff.

The reason behind this situation might be due to the timeframe of the study conducted during pandemic COVID-19 in all over the world that also give an affect to health staff in Kelantan. Therefore, due to this current health related issues, there is no training was conducted to avoid the transmission of this contagious disease. Since there was reducing number of safety training conducted to the staff, it makes them feels that there was less of comprehensive training to the workers regarding workplace health and safety issues.

Based on the Hospital Performance Indicator (HPIA) the requirement for simulation of safety training conducted were twice a year. Since no safety training program is conducted, it creates a perception among AMOs that safety training programs can be ignored and thus not contribute to safety behavior. Inadequate safety training for the AMOs will make them unable to perform hazards assessment in workplace effectively.

### **5.3.3 The Relationship Between Workers Involvement and Safety Behavior**

This study showed that there was significant influence between the workers involvement toward the safety behavior of assistant medical officers in a government hospital in Kelantan state. Since, there was positive relationship between the workers involvement and the safety behavior among AMOs in Kelantan public Hospital

Previous studies show that employees' participation is an important factor for safety behavior (Biggs et al., 2005, Gevers, 1983: O'Toole. 1999, Khairiah, 2008, Vredenburg,

2002). It was clear that employees' involvement required employees to take up the responsibility that engages themselves supportively in activities that emphasize the learning process and encourage them to support and cooperate in forming a safe workplace environment (Geldart, Shannon & Lohfeld, 2005; Topf, 2001).

Based on this study, the result is most likely due to the fact that workers are strictly required to engage and always give feedback in safety because they have to contribute in the Safety and Health Committee at their respective unit or even at the hospital level and dedicate themselves to give an output safety concerns issues before any decision is made.

Other explanation also due to their responsibility have be acknowledge on safety issues during the safety audit and daily self's declaration on current health status, since the AMOs job description are screening the patient and staff in department. Starting on March 2020, there was several of inhouse rules created by hospital management to screening and detecting the ill staff during this pandemic season.

#### **5.3.4 The Relationship Between Safety Communication and Feedback with Safety Behavior**

The results of this study showed no significant influence between safety communication and feedback toward safety behavior among AMOs in government hospital in Kelantan. Hence, there was no relationship between safety communication and feedback with safety behavior among AMOs in Kelantan public hospitals.

This finding appears to be similar with of other studies that demonstrated no significant effect of safety communication and feedback on safety behavior by (Subramaniam,C., Zin, M. L. M., & Naidr, S. R 2013). This is could be due to the factors such as the communication gap that exists between the supervisor who represent management level and the subordinates. Some supervisor or management level staff may selectively closer to some senior or selected subordinate. Due to this situation will create difficulties for a safety issues to receive mutual consent.

On the other view, orientation of communication flow also becoming a contributing factor that act as barrier to improve safety behavior of the AMOs. Top-down communication method, where management is more likely to make decisions and orders, while employees need to obey the instructions provided by management. Communication and feedback between the management level and the subordinates may not be as good as expected. Subordinates might feel a large gap between employees and the top management, which has restricted the flow of two-way communication.

### **5.3.5 The Relationship Between Safety Rules and Prosedure with Safety Behavior**

This study revealed that safety rules and procedures has significant relationship on safety behavior. Therefore, there was positive relationship between safety rules and prosedures and safety behavior among AMOs worked in publics hospital in Kelantan state.

Other studies have also revealed that safety rules and procedures were important for improvement of the safetybehavior (Cox and Cheyne 2000: Glendon and Litherland 2001 and Mearns et al.,2003)

This is probably because the nature of work for AMO's are involving human life. They may feel that if adequate safety rules and procedures are in place, then it will give a better chance or possibility to achieve good safety behavior, since there were already clear guideline or procedure's need to be followed to improve safety and avoiding undesirable incident. Documented safety rules and procedures in the form flow chart and easily accessible to be referred or as reminder really help in improving safety behavior among assistant medical officers.

There are many standard operating procedures (SOPs) produced the Ministry of Health to ensure good health practice is followed by all worker participating in activities carried out in the hospital. In addition, current culture of work for healthcare worker and especially assistant medical officers' personnel must wear suitable personal protective equipment (PPE) such as disposable aprons, facial mask and glove to reduce exposure to hazards.

Besides that, the AMOs acknowledge that purpose of safety rules and procedures in the workplace created to ensure their safety as healthcare enforcement. The enforcement by management regarding government rules and procedures shall provide workers with a reminder that the importance of safety behavior must always been carried out in during work and in compliance with existing procedures. Thus, employees tend to achieve excellent safety behavior when safety rules are implemented well in an organization and always been monitored by the supervisor or any management level.

### **5.3.6 The Relationship Between Safety Promotion Policies and Safety Behavior**

This present study has made hypothesis that safety promotion policies have positively relationship with safety behavior. The result of the analysis shows an opposite situation compared to hypothesis produced. Hence, there was negative relationship between safety promotion policies and safety behavior.

This finding appears to be consistent with that of other studies that demonstrated no significant effect of safety promotion policies on safety compliance (Subramaniam, C., Zin, M. L. M., & Naidr, S. R 2013)

This is possibly due to promotion policies not been practice in government hospital in Kelantan. The AMOs perception toward management or higher-level decision making for job promotion or choosing yearly best employee award most likely toward seniority rather than job performance. Thus, reduce the influence of promotion policies in motivate the workers toward safety behavior.

The reward systems also seem not to be implemented to motivate the workers in the government hospital in Kelantan. In addition, when incident happen, or near miss occur, there will be conflict between the reported person and the worker who responsible involving the incident, even though by reporting the incident will help to create safe work environment. In their view, they must face the supervisor, management level to give the feedback of the incident investigation and even must undergone supervision during work to make sure their competency.

In addition, motivation of the workers also part of important issues in cultivating safety behavior in workplace. Some appreciation to the workers, recognition by high level

management, additional incentives of rewards, would help to motivate them to participate and support in safety activities and thus promote safety behavior and prevent occupational accidents. Thus, implementation of proper safety promotion policies very important to be polish among AMOs in the government hospital in Kelantan.



#### **5.4. Implication of Study**

There some implication from the study conducted to be shared in this section. Strategy for improvement of safety environment in workplace which is can be obtained through cultivate the safety behavior, the management level needs to focus on the issues that was insignificant from the study. The findings of this study pointed out that for improvement of safety behavior in Hospital setting, there the need for expend the body of knowledge as the driving force behind safety behavior. Through increasing knowledge and awareness related to the importance of safety issues pursue them to be sincerely participate contribute to the safety working environment of the hospital area.

The result of the study conclude that safety training does not significantly influence to safety behavior among of assistant medical officers. Hence, the AMOs management level should emphasis the important of safety training program, to cultivate the safety behavior. The training conducted must be diversifying the delivery methods, making the courses more interactive, and conducting practical training be more comprehensive and adequate enough to enable them in assessing the hazards in hospital.

The communication and feedback also becoming insignificant throughout this study. Therefore, creating a more friendly communication environment between management and subordinate are also very important part for the management level to partake and look after. Without good communication with the workers, the superior cannot obtain full information on safety issues in hospital if there are obvious communication gap. An open communication and sufficient opportunity to converse and discuss on safety related issues between workers and management level in hospital should applied. This give an

opportunity for the AMOs to rise their opinion and suggestion regarding safety issues in hospital willingly.

Lastly, from the result of the study also shows that no significant relation in between safety promotion policies and safety behavior. Consequently, empower the safety promotion policies in order to cultivate the safety behavior among AMOs also an important issue. The promotion of safety can be done by make a routine safety weeks celebration and other safety promotional activities effectively in creating safety awareness among the AMOs. Some appreciation in form of reward, appreciation certificate and etcetera for workers can be given in the monthly hospital assembly as recognition by organization as their contribution in safety issues. Therefore, the promotion policies can be positively contributed in cultivate the safety behavior among AMOs and other workers in hospital to create safe workplace environment.

While the issues that already determine as significantly influence on the safety behavior by this study such as management commitment, workers involvement and safety rules and procedures still need to be continuously strengthened and maintained to cultivate the safety behavior in hospital setting.

## **5.5 Limitation of Research**

It is very beneficial to acknowledge the limitation existing in the study conducted as it may be considered for improvement in the future study for the related topic. Furthermore, due to time and cost constraints, the participants of the study were sampled from selected

government hospital in Eastern peninsular of Malaysia. In a limited period, having said again, the result of this study can't be generalized yet can only represent to specific population of the study, within those periods of time which study was conducted. It's also not representing the whole organization since the sample population came from various of specific department such as emergency department, medical department, orthopedic department and other related department where subject population works. But in other view it more to shows researcher the current perception of this study population toward safety behavior.

Moreover, it should be noted that the data was self-reported, which the survey was relying on the current condition and some experiences that they memories toward the program or issues related to safety the past 12 months period of time or memories since they been worked at that hospital. Since the current global issues were preparation toward against pandemic COVID-19, there are several new SOPs produce and need to be straightly followed. Thus, make the management commitment seem to be very active in term of enforcement of the rules and procedure according to SOPs and the workers seem to have no option unless to be actively participate

Finally, the study population its self playas an important roles in supporting the result of the study. Since this is self-reporting questionnaire, the researcher always needs to remain the respondent and request to complete the task. May be some of them are not sincerely put themselves in the understanding of research questionnaire. Thus, some of the respondents may answer the question just to the completion of their supervisor and the researcher request and they do not serious about the importance of the research

## **5.6 Recommendation for Other Researchers**

Generally, this study directly used a model which was adopted and adapted from Vinodkumar & Bhasi (2010) to investigate the relationship between safety management practices and safety behavior among assistant medical officers to the hospital environment in the context of eastern peninsular Malaysia. Thus, it's not represented the whole organization. Its be more beneficial if the study conducted to represent the whole organization and the demographic data also can be analyzed to see the different perception or different view from other designation in the same department.

The focus of this analysis is on the relationship between management activities and aspects of behavior with occupational safety. Further study also can be conducted to analyze the moderating effect of the safety behavior of the workers in healthcare facilities such as demographic factors, motivations, individual characteristics or knowledge. Research on safety and health of the employee still minimal in healthcare facilities the country although it is of utmost importance to allow the organizations to determine the scope and role of each person responsible for improvement of the safety environment.

## 5.7 Conclusion

As for the conclusion, based on the objective of the research the safety management practices among assistant medical officer in government hospital in Kelantan and its correlations towards safety behavior was examined.

This study used the available instruments in the form of a questionnaire that was adopted and adapted from Vinodkumar and Bhasi (2010). Overall, this research has been active in demonstrating the value of good safety management practices (management commitment, safety training, workers involvement, 'safety communication and feedback', 'safety rules and procedure' and safety promotion policies) in determining healthy behaviors and attitudes (safety compliance and safety participation) in the workplace. The result of the study highlighted only three (management commitment, workers involvement and safety rules and procedures) that have statistically influence toward safety behavior among AMOs. The result of the study have contributed to planning of development and improvement of safety behavior and have the potential to extend to study the whole organization rather than specific target population.

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Appendic A



# UUM

Universiti Utara Malaysia

BORANG SOAL SELIDIK  
*The Survey Questionnaire*

Tuan / Puan,  
*Dear Sir/Madam,*

Saya Muhammad Naim bin Sulaiman dari Universiti Utara Malaysia (Nombor Matrik Pelajar : 823295), sedang menjalankan kajian untuk memenuhi keperluan Ijazah Sarjana Sains (Pengurusan Keselamatan dan Kesihatan Pekerjaan) bertajuk "Hubungan antara Amalan Pengurusan Keselamatan dan Tingkah Laku Keselamatan di kalangan Penolong Pegawai Perubatan di hospital awam di Kelantan.

*( I am Muhammad Naim bin Sulaiman of University Utara Malaysia (Student Matric Number : 823295), currently conducting a research as requirement for Master of Science (Occupational Safety and Health Management) entitled “ The Relationship between Safety Management Practices and Safety Performance among Assistant Medical Officer at public hospital in Kelantan.)*

Soal selidik ini adalah sulit, semua maklum balas adalah rahsia dan akan digunakan hanya untuk tujuan akademik.

*(This is an anonymous survey whereby all responses will be kept strictly confidential and will be used for academic purposes only.)*

Terima kasih kerana sudi meluangkan masa untuk melengkapkan soal selidik ini.

*(Thank you for your time and participation.)*

Yang benar,  
*Yours sincerely,*

MUHAMMAD NAIM BIN SULAIMAN

Email : [mns.naim1407@gmail.com](mailto:mns.naim1407@gmail.com)

+6019-3622027

**Bahagian A : Data demografi responden**

**Part A: Demographic profile of the respondents**

Sila tandakan [v] pada persoalan berikut mengenai diri anda.

*Please tick [v] to the following question about yourself.*

1. Jantina (*Gender*)

[     ] Lelaki (*Male*)

[     ] Perempuan (*Female*)

2. Tahap pendidikan (*Level of education*)

[     ] Diploma

[     ] Ijazah Sarjana Muda (*Degree*)

[     ] Ijazah Sarjana (*Master*)

[     ] PHd.

[     ] Lain-lain sila nyatakan (*Others please specify*) : \_\_\_\_\_

3. Sila tuliskan nama jawatan dan gred anda. (*Please write down your staff position and grade.*)

[     ] U 29/ U32(KUP)

[     ] U36

[     ] U 32/ U36(KUP)

[     ] U 41/ U42.

4. Sudah berapa lamakah anda berkhidmat di sebagai Pen. Pegawai Perubatan? (*How long have you worked as assistant medical officer?*)

[     ] Kurang dari 1 tahun. (*Less than 1 year*)     [     ] 11 ke 15 tahun (*11 to 15 years*)

[     ] 1 ke 5 tahun (*1 to 5 years*)     [     ] 16 ke 20 tahun (*16 to 20 years*)

[     ] 6 ke 10 tahun (*6 to 10 years*)     [     ] 21 tahun dan lebih (*21 years or more*)

5. Apakah Jabatan/ Unit semasa anda bertugas sekarang? (*What is your current department?*)

[     ] Kecemasan & Trauma (*A&E*)

[     ] Ortopedik (*Orthopedic*)

[     ] Perubatan (*Medical*)

[     ] Pembedahan (*Surgical*)

[     ] Psikiatrik (*Psychiatric*)  
(*Anesthesiology*)

[     ] Anestesiologi

[     ] Lain-lain sila nyatakan (*Others please specify*) :

\_\_\_\_\_

**Berdasarkan skala yang disediakan, sila tandakan kotak yang bersesuaian untuk menunjukkan tahap persetujuan anda terhadap kenyataan tersebut**

*Based on provided scale, please tick the appropriate box to indicate your level of agreement toward the statement*

<b>SANGAT TIDAK BERSETUJU</b> <i>Strongly disagree</i>	<b>TIDAK BERSETUJU</b> <i>Disagree</i>	<b>TIDAK PASTI</b> <i>NEUTRAL</i>	<b>SETUJU</b> <i>Agree</i>	<b>SANGAT BERSETUJU</b> <i>Strongly agree</i>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

**BAHAGIAN B : KOMITMEN PIHAK PENGURUSAN**  
*(MANAGEMENT COMMITMENT)*

	1	2	3	4	5
1. Keselamatan diberi keutamaan oleh pihak pengurusan. <i>(Safety is given high priority by the management.)</i>					
2. Peraturan dan prosedur keselamatan diikuti oleh pihak pengurusan. <i>(Safety rules and procedures are strictly followed by the management.)</i>					
3. Tindakan pembedahan sentiasa diambil apabila amalan kerja yang tidak selamat berlaku. <i>(Corrective action is always taken when the management is told about unsafe practices.)</i>					
4. Di tempat kerja pengurus / penyelia saya tidak menunjukkan minat terhadap keselamatan pekerja. <i>(In my workplace managers/supervisors do not show interest in the safety of workers.)</i>					
5. Pengurusan menganggap keselamatan menjadi sama pentingnya dengan perkhidmatan. <i>(Management considers safety to be equally important as services.)</i>					
6. Ahli pengurusan tidak menghadiri mesyuarat keselamatan. <i>(Members of the management do not attend safety meetings.)</i>					
7. Saya rasa pihak pengurusan bersedia untuk berkompromi dengan keselamatan untuk meningkatkan pengeluaran. <i>(I feel that management is willing to compromise on safety for increasing production.)</i>					
8. Apabila dilaporkan kejadian hampir berlaku kemalangan, pengurusan saya bertindak dengan cepat untuk menyelesaikan masalah. <i>(When near-miss accidents are reported, my management acts quickly to solve the problems.)</i>					
9. Hospital saya menyediakan peralatan perlindungan peribadi yang mencukupi untuk para pekerja. <i>(My Hospital provides sufficient personal protective equipment's for the workers.)</i>					

<b>BAHAGIAN C. LATIHAN KESELAMATAN</b> <i>(SAFETY TRAINING)</i>	1	2	3	4	5
1. Hospital saya memberikan latihan komprehensif kepada pekerja di tempat kerja dan isu keselamatan. <i>(My hospital gives comprehensive training to the employees in workplace health and safety issues.)</i>					
2. Anggota baru dilatih secukupnya untuk mempelajari peraturan keselamatan dan prosedur. <i>(Newly recruits are trained adequately to learn safety rules and procedures).</i>					
3. Masalah keselamatan diberi keutamaan dalam program latihan. <i>(Safety issues are given high priority in training programs)</i>					
4. Saya dilatih secukupnya untuk bertindak balas terhadap situasi kecemasan di tempat kerja saya. <i>(I am adequately trained to respond to emergency situations in my workplace)</i>					
5. Pengurusan menggalakkan para pekerja menghadiri program latihan keselamatan. <i>(Management encourages the workers to attend safety training programs.)</i>					
6. Latihan keselamatan yang diberikan kepada saya adalah mencukupi untuk membolehkan saya menilai bahaya di tempat kerja. <i>(Safety training given to me is adequate to enable me to assess hazards in workplace.)</i>					
<b>BAHAGIAN D. PENGLIBATAN PEKERJA</b> <i>(WORKER'S INVOLVEMENT)</i>	1	2	3	4	5
1. Pengurusan sentiasa mengalu-alukan pendapat daripada pekerja sebelum membuat keputusan muktamad mengenai hal berkaitan keselamatan. <i>(Management always welcomes opinion from employees before making final decisions on safety related matters.)</i>					
2. Hospital saya mempunyai jawatankuasa keselamatan yang terdiri daripada wakil-wakil pengurusan dan pekerja. <i>(My Hospital has safety committees consisting of representatives of management and employees.)</i>					
3. Pengurusan menggalakkan penglibatan pekerja dalam hal berkaitan keselamatan. <i>(Management promotes employees involvement in safety related matters.).</i>					
4. Pengurusan berunding dengan pekerja secara kerap mengenai isu-isu kesihatan dan keselamatan tempat kerja. <i>(Management consults with employees regularly about workplace health and safety issues.)</i>					
5. Pekerja ikhlas mengambil bahagian dalam mengenal pasti masalah keselamatan. <i>(Employees sincerely participate in identifying safety problems)</i>					

<b>BAHAGIAN E. KOMUNIKASI DAN MAKLUMBALAS KESELAMATAN (SAFETY COMMUNICATION AND FEEDBACK)</b>	1	2	3	4	5
1. Hospital saya mempunyai sistem pelaporan bahaya di mana pekerja boleh menyampaikan maklumat bahaya sekiranya insiden berlaku. ( <i>My Hospital have a hazard reporting system where employees can communicate hazard information if incidents occur.</i> )					
2. Pengurusan mengendalikan dasar pintu terbuka mengenai isu-isu keselamatan. ( <i>Management operates an open door policy on safety issues.</i> )					
3. Terdapat peluang yang mencukupi untuk membincangkan dan menangani isu keselamatan dalam mesyuarat. ( <i>There is sufficient opportunity to discuss and deal with safety issues in meetings.</i> )					
4. Sasaran dan matlamat untuk prestasi keselamatan dalam organisasi saya jelas kepada pekerja. ( <i>The target and goals for safety performance in my organization are clear to the workers.</i> )					
5. Terdapat komunikasi terbuka mengenai isu keselamatan di tempat kerja ini. ( <i>There is open communications about safety issues in this workplace.</i> )					
<b>BAHAGIAN F. PERATURAN-PERATURAN KESELAMATAN DAN PROSEDUR KESELAMATAN (SAFETY RULES AND PROCEDURE)</b>	1	2	3	4	5
1. Peraturan dan prosedur keselamatan diikuti di syarikat saya adalah mencukupi untuk mengelakkan insiden berlaku. ( <i>The safety rules and procedures followed in my company are sufficient to prevent incidents occurring.</i> )					
2. Kemudahan di jabatan keselamatan mencukupi untuk memenuhi keperluan organisasi saya. ( <i>The facilities in the safety department are adequate to meet the needs of my organization.</i> )					
3. Penyelia dan pengurus saya sentiasa berusaha untuk menguatkuasakan prosedur kerja yang selamat. ( <i>My supervisors and managers always try to enforce safe working procedures.</i> )					
4. Pemeriksaan keselamatan dijalankan dengan kerap. ( <i>Safety inspections are carried out regularly.</i> )					
5. Prosedur dan amalan keselamatan dalam organisasi ini adalah berguna dan berkesan. ( <i>The safety procedures and practices in this organization are useful and effective.</i> )					
<b>BAHAGIAN G. POLISI PROMOSI KESELAMATAN (SAFETY PROMOTION POLICIES)</b>	1	2	3	4	5
1. Di dalam hospital saya tingkah laku selamat dianggap sebagai faktor positif untuk promosi kerja. ( <i>In my Hospital safe conduct is considered as a positive factor for job promotions.</i> )					

2. Di dalam Hospital saya, anggota diberi ganjaran sekiranya melaporkan terdapat kejadian bahaya keselamatan (terima kasih, wang tunai atau hadiah lain, pengiktirafan dalam surat berita, dll.). <i>(In my Hospital employees are rewarded for reporting safety hazards (thanked, cash or other rewards, recognition in newsletter, etc.)</i>					
3. Dalam program minggu keselamatan hospital saya dan aktiviti promosi keselamatan lain yang diatur oleh pihak pengurusan sangat berkesan dalam mewujudkan kesedaran keselamatan di kalangan pekerja. <i>(In my hospital safety week celebration and other safety promotional activities arranged by the management are very effective in creating safety awareness among the workers.)</i>					
4. Terdapat persaingan yang sihat di kalangan pekerja untuk mengetahui dan melaporkan keadaan dan perbuatan yang tidak selamat. <i>(There exists very healthy competition among the employees to find out and report unsafe condition and acts.)</i>					
5. Penyelia kami menjadi sangat gembira apabila pekerja mengetahui dan melaporkan keadaan yang tidak selamat dan bertindak dalam seksyen kami. <i>(Our supervisor becomes very happy when employees find out and report unsafe conditions and acts in our section.)</i>					
<b>BAHAGIAN H. PEMATUHAN KESELAMATAN (SAFETY COMPLIANCE)</b>	1	2	3	4	5
1. Saya menggunakan semua peralatan keselamatan untuk melakukan tugas saya. <i>(I use all necessary safety equipment to do my job.)</i>					
2. Saya menjalankan kerja dengan selamat. <i>(I carry out my work in a safe manner.)</i>					
3. Saya mengikuti peraturan dan prosedur keselamatan yang betul semasa menjalankan tugas saya. <i>(I follow correct safety rules and procedures while carrying out my job.)</i>					
4. Saya memastikan keselamatan tertinggi apabila saya menjalankan tugas saya. <i>(I ensure the highest levels of safety when I carry out my job.)</i>					
5. Walau kekurangan masa, saya tidak menyimpang dari prosedur kerja yang betul dan selamat. <i>(Even though lack of time, I not deviate from correct and safe work procedure.)</i>					
6. Kadang-kadang kerana lebih akrab dengan pekerjaan, saya menyimpang dari prosedur kerja yang betul dan selamat. <i>(Occasionally due to over familiarity with the job, I deviate from correct and safe work procedure.)</i>					
7. Tidak selalu praktikal untuk mematuhi semua peraturan dan prosedur keselamatan ketika melakukan pekerjaan. <i>(It is not always practical to follow all safety rules and procedures while doing a job.)</i>					

<b>BAHAGIAN I. PENYERTAAN KESELAMATAN (SAFETY PARTICIPATION)</b>	1	2	3	4	5
1. Saya membantu rakan sekerja saya apabila mereka bekerja di bawah keadaan berisiko atau berbahaya. <i>(I help my co-workers when they are working under risky or hazardous conditions.)</i>					
2. Saya sentiasa menunjukkan kepada pihak pengurusan sekiranya ada perkara berkaitan keselamatan yang dapat dilihat di syarikat saya. <i>(I always point out to the management if any safety related matters are noticed in my company.)</i>					
3. Saya berusaha keras untuk meningkatkan keselamatan tempat kerja. <i>(I put extra effort to improve the safety of the workplace.)</i>					
4. Saya secara sukarela menjalankan tugas atau aktiviti yang membantu meningkatkan keselamatan di tempat kerja. <i>(I voluntarily carryout tasks or activities that help to improve workplace safety.)</i>					
5. Saya menggalakkan rakan sekerja saya bekerja dengan selamat. <i>(I encourage my co-workers to work safely.)</i>					



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