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**SAFETY CLIMATE AMONG RADIOGRAPHERS AT 3 MAJOR  
HOSPITALS IN SELANGOR**



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

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## ABSTRACT

The researcher studies safety climate among radiographers at 3 major hospitals in Selangor. The objective of this study is to know the level of safety climate among radiographers according to demographic factors. The overall mean score of safety climate among radiographers is high. In demographic factors the respondent's age, gender, marital status, race and experience of the radiographers are used as an independent variables. A total 140 questionnaires were distributed to 3 major hospitals selected. The questionnaires were from modified version of Zohar and Luria's 2005. Results of this study show that safety climate were acceptable for radiographer major in demographic factors. This study also recommends that safety management to be implemented in Radiology Department in future as safety is applied in work procedures. Moreover, the safety climate can be improved by giving training, rewards to radiographer, safety facilities in workplace and safety policy applied.

*Keywords: Age, Marital Status, Gender, Years of Experience, Race, and Safety Climate.*

## ABSTRAK

Penyelidik mengkaji iklim keselamatan dalam kalangan Juru X-ray di 3 hospital utama di negeri Selangor. Objektif kajian ini adalah mengetahui tahap iklim keselamatan dalam kalangan Juru X-ray mengikut faktor demografi. Dalam faktor demografi umur responden, jantina, status perkahwinan, bangsa dan pengalaman bekerja digunakan sebagai pembolehubah bebas. Secara keseluruhan mean untuk iklim keselamatan bagi Juru X-ray adalah tinggi. Sebanyak 140 soal selidik telah diedarkan di 3 hospital utama yang dipilih dalam Selangor. Penyelidikan kuantitatif digunakan dimana borang soalselidik diambil daripada pengubahsuaian Zohar dan Luria's 2005. Maka, hasil kajian ini menunjukkan bahawa iklim keselamatan tidak mempunyai perbezaan yang signifikan dalam faktor demografi. Kajian ini juga mencadangkan agar pengurusan keselamatan dilaksanakan dalam Jabatan Radiologi pada masa akan datang dan ia juga boleh digunakan sebagai garis panduan dan rujukan. Hasil kajian menunjukkan bahawa iklim keselamatan sesuai diterima dalam kalangan Juru x-ray dalam faktor demografi. Kajian ini juga mencadangkan prosedur serta implementasi kerja seharian seharusnya menggunakan dan mengambil kira faktor-faktor keselamatan. Selain itu, iklim keselamatan dapat diperbaiki dengan memberikan latihan, ganjaran kepada Juru x-ray, serta menyediakan kemudahan keselamatan di tempat kerja dan mengikut polisi keselamatan tempat kerja.

Kata kunci: Umur, Status perkahwinan, Jantina, Bangsa, Pengalaman bekerja dan Iklim keselamatan.

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## LIST OF ABBREVIATIONS AND SYMBOLS

<b>Short Forms</b>	<b>Descriptions</b>
ANOVA	Analysis of Variance
CFA	Confirmatory Factor Analysis
DOSH	Department of Occupational Safety Health
IOM	Institute of Medicine
ISO	International Organization for Standardization
MOH	Ministry of Health
NKEA	National Key Economic Areas
OSHA	Occupational Safety and Health Act 1994
SPSS	Statistical Package for the Social Sciences
SEM	Structural equation modelling



## CHAPTER 1

### INTRODUCTION

#### 1.1 Introduction

This section intends to discover the relationship between the safety climates in radiology department and demography factors in the healthcare industry. Besides, this chapter will discuss and highlight the issues that arise between safety climate and healthcare industry. Furthermore, this chapter will state the background of the study, problem of the statement, the research questions, and research objectives to fulfill the issues of this study. In addition, significance of the study and the chapter layout will display in end of this chapter.

#### 1.2 Background of the Study

The development of service in the healthcare sector is one of the an important economy for the Malaysian. This sector is targeted by the government to develop the competitiveness of the Malaysian economy. In the 10th Malaysia Plan (2011-2015), the Malaysian government has been identified healthcare services as one of the key priority sectors of the 12 NKEA. The significance of this sector is emphasized to meet not only the social aims of quality and standard of healthcare for the society, but also enhanced the economic revenue from the export of health services and medical tourism. The Ministry of Health is the main public agency in charge for the delivery of healthcare in the country (Chee, 1990). However, the structures and procedures used in the organization vary

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## APPENDICES

Dear respondent,

My name is Alagumail@ Alagu a student from Universiti Utara Malaysia doing Master Science of Occupational Safety and Health Management. I am conducting a study on safety climate among radiographers. I attach a copy of the questionnaire that is related to my studies. Please take few minutes to answer my questions below. The questionnaire comprises 12 questions and it will focus on organization safety climate, proactive safety behaviour and compliance safety behaviour. All the responses will remain confidential and your identity will not be revealed to anyone. Your participation and support in this study really appreciated on the information provided is for academic purpose only. For further enquiry you may contact me via email [alagu.anusha3@gmail.com](mailto:alagu.anusha3@gmail.com) or my direct mobile no 011-21264865. Thank you very much for your cooperation.

### DEMOGRAPHIC INFORMATION

Please tick (✓) the answer and fill in the space given

#### 1. Age

20-30	
31-40	
41-50	
51-60	

#### 2. Gender

Male

Female

#### 3. Race

Malay	
Chinese	
Indian	
Others	

#### 4. Marital status

Single

Married

#### 5. Years of service

Less 5 year	
5-10 years	
11-20 years	
21-30 years	
31-40 years	
More than 40 years	

(Think about your nature of your safety climate among radiographers. Circle your best answers according to the scale below).

Sangat tidak setuju (Strongly disagree)	Tidak setuju (Disagree)	Sedikit tidak setuju (Slightly Disagree)	Berkecuali/ Natural (Neutral)	Sedikit bersetuju (Slightly agree)	Setuju (Agree)	Sangat setuju (Strongly agree)
1	2	3	4	5	6	7

#### Organizational safety climate

*Iklm keselamatan organisasi*

My Organization...

Tempat kerja saya...								
1	provides all the equipment needed to do the job safely. <i>menyediakan semua peralatan yang diperlukan bagi menjalankan tugas dengan selamat.</i>	1	2	3	4	5	6	7
2	quickly corrects any safety hazard even if it is costly. <i>segera membuat pembedulan jika terdapat bahaya keselamatan walaupun memerlukan kos yang tinggi.</i>	1	2	3	4	5	6	7
3	considers a person's safety behavior when there are promotions. <i>mengambil kira tingkah laku keselamatan setiap individu sewaktu kenaikan pangkat.</i>	1	2	3	4	5	6	7
4	invests a lot of time and money in safety training for workers. <i>melaburkan masa dan wang yang banyak dalam menjalankan latihan keselamatan kepada pekerja.</i>	1	2	3	4	5	6	7
5	listens carefully to workers' ideas about improving safety. <i>mendengar dengan baik segala idea daripada pekerja dalam meningkatkan tahap keselamatan.</i>	1	2	3	4	5	6	7
6	gives safety personnel the power they need to do their job. <i>memberi kuasa yang diperlukan oleh anggota keselamatan untuk menjalankan tugas mereka.</i>	1	2	3	4	5	6	7
<b>Proactive safety behavior</b> <b><i>Tingkah laku keselamatan proaktif</i></b>								
7	I have made suggestions to improve safety. <i>Saya telah membuat cadangan untuk meningkatkan tahap keselamatan.</i>	1	2	3	4	5	6	7
8	I have tried to encourage my colleagues to get involved in safety issues. <i>Saya telah mencuba untuk menggalakkan rakan sekerja saya untuk terlibat dalam isu keselamatan.</i>	1	2	3	4	5	6	7
9	I have acted to prevent the recurrence of previous incidents. <i>Saya telah bertindak untuk mencegah berlakunya kejadian/peristiwa yang lalu.</i>	1	2	3	4	5	6	7
<b>Compliance safety behavior</b> <b><i>Pematuhan tingkah laku keselamatan</i></b>								
10	I have used the appropriate PPE as indicated by the Department of Health and Safety. <i>Saya telah menggunakan PPE yang sesuai seperti yang disarankan oleh Jabatan Kesihatan dan Keselamatan.</i>	1	2	3	4	5	6	7
11	I properly performed my work while wearing PPE. <i>Saya melakukan kerja saya dengan baik semasa memakai PPE.</i>	1	2	3	4	5	6	7
12	I have taken the appropriate steps to prevent exposure to hazards and risks. <i>Saya telah mengambil langkah yang sesuai untuk mengelakkan pendedahan kepada bahaya dan risiko.</i>	1	2	3	4	5	6	7

If you wish to elaborate on some of your answers, or if you have any comments regarding the study, you are welcome to write them here.

Comments:

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© Thank you for filling in the questionnaire.

