CHAPTER 1

INTRODUCTION

1.1 Introduction

Firefighters is primarily save the life and maintaining the safety (Rahimi et al., 2017). They need to carry out their tasks properly because of successful tasks depending on their fitness. According to the National Fire Protection Agency State Fire Department, they will work out and participate in health programs to make sure they always fit and healthy so that they can perform tasks indeed. Fire occupational is a job that requires professional skills to perform tasks such as rescue victims safely. Therefore, they should always pay attention to physical fitness and always alert about fitness that suits their abilities.

Fitness is a physical condition that needs to be done to fulfil the role of their work. Fitness Protocol comprises five types which are muscle endurance, muscle strength, cardiorespiratory endurance, body mass index (BMI) and flexibility. After that, the composition of the body is measured by using the formula weight in kilograms by height metres square (Cristina, 2015). BMI categorized as underweight, normal weight, overweight and obese.

In addition, physical lifestyle can be done in different ways according to their capabilities and preferences. For example, how many hours a day they spend time to do any activities. Then, they will selecting any activities that make them become more fit and healthy physically (Andrea et al., 1998). As a conclusion, what do you do on a daily day is a part of lifestyle activities. Therefore, the purpose of this research is to determine
the association between Body Mass Index (BMI) and fitness of the firefighters in Kuantan.

1.2 Problem Statement

Excellent fitness enhances the quality of skills in performing their duties. Firefighters is needed to perform important tasks. Therefore, they must maintain a level of physical fitness and body mass index (BMI) accordance with the specified BMI index. However, the firefighters faced many obstacles and pressure when the duties are not satisfactory. First of all, lack of physical activities cause a firefighter prone to obesity (Baur et al., 2012). Firefighter have high risk susceptible to increase weight and at the same time, they will be associated with failure in health status. For example, lack of physical activity are weak in terms of fitness and the risk of developing this disease.

Durand et al., (2011) state that the majority of the majority of the Fire Department in the United States does not give any instructions to carry out any activities relating to fitness, their department is less concerned about the activities of their subordinate work and do not have any conditions relating to the maintenance of physical activity after getting a special job. Changes of work always practiced because to cover the necessities of life ignore their own health. In particular, work requiring high-intensity approach to exercise and movement to achieve a level of good health at the next higher level. However, the disruption to the high-intensity work should contribute to the risk of the heart against firefighters who showed their fitness is not appropriate (Storer et al. 2013).

In 2004, Koch et al., reported that high BMI affects motor performance and physical fitness negatively. However, public safety and the health and safety firefighters will implement a fitness program to increase the number of healthy firefighter in order to show good performance and quality in operating rescue. Therefore, this study is to investigate the association between BMI and fitness among the Fire.
1.3 Research Objective

This study were conducted to achieve the following objectives:
1.3.1 To determine BMI of firefighters in Kuantan.
1.3.2 To determine the level of fitness of firefighters in Kuantan.
1.3.3 To determine the association between BMI and fitness of firefighters in Kuantan.
1.3.4 To determine other factors that effects fitness level of firefighters in Kuantan.

1.4 Research Questions

This study were conducted to answer the following questions:
1.4.1 What is the Body Mass Index (BMI) of firefighters in Kuantan?
1.4.2 What are the level of fitness of firefighters in Kuantan?
1.4.3 What are the association between Body Mass Index (BMI) and fitness of firefighters in Kuantan?
1.4.4 What are the other factors that effects fitness level of firefighters in Kuantan?

1.5 Research Hypothesis

1.5.1 The level of fitness depends on the BMI of firefighters in Kuantan.
1.5.2 Age, smoking status, work experience and workout exercise give effects on the fitness level of firefighters in Kuantan.

1.6 Scope of Study

This study is conducted in Kuantan and the respondent involved are firefighters. The aim is to determine the association between BMI and fitness firefighter in Kuantan. This study focuses on the firefighter and review for more information related to the relationship of BMI and fitness firefighter who involved. This study uses several methods to evaluate their fitness level and to know whether BMI and fitness firefighter related or